

ETHIRAJ COLLEGE FOR WOMEN (Autonomous)
Chennai – 600 008

Affiliated to the University of Madras
College with Potential for Excellence
Reaccredited with A Grade by NAAC



2.6.1 Course Outcomes of the all Courses Offered by the Institution

ETHIRAJ COLLEGE FOR WOMEN (AUTONOMOUS)
COURSES OUTCOMES



UNDERGRADUATE PROGRAMMES

LANGUAGES

COURSE CODE	SEM	COURSE TITLE	COURSE OUTCOMES
FOUNDATION ENGLISH & SOFTSKILLS			
EL18/1F/FEN	I	Foundation English – I	<ol style="list-style-type: none"> 1. Appreciate the nuances of language through literature 2. Develop comprehension skills and vocabulary 3. Identify the various genres and analyse the works of writers in English 4. Improve the fluency and formation of grammatically correct sentences 5. Enhance the writing skills through technology
EL18/2F/FEN	II	Foundation English – II	<ol style="list-style-type: none"> 1. Appreciate the nuances of language through literature 2. Develop comprehension skills and vocabulary 3. Identify the various genres and analyse the works of writers in English 4. Improve the fluency and formation of grammatically correct sentences 5. Enhance the writing skills for specific purposes
EL18/3F/FEN	III	Foundation English – III	<ol style="list-style-type: none"> 1. Appreciate the nuances of language through literature 2. Develop comprehension skills and vocabulary 3. Identify the various genres and analyse the works of writers in English 4. Improve the fluency and formation of grammatically correct sentences 5. Enhance the writing skills for specific purposes
EL18/4F/FEN	IV	Foundation English - IV	<ol style="list-style-type: none"> 1. Appreciate the nuances of language through literature 2. Develop comprehension skills and vocabulary 3. Identify the various genres and analyse the works of writers in English

			<ol style="list-style-type: none"> 4. Improve the fluency and formation of grammatically correct sentences 5. Enhance the writing skills for specific purposes
UG18/1S/CLS	I	Communication And Life Skills – I	<ol style="list-style-type: none"> 1. Demonstrate necessary listening skills in order to follow and comprehend discourse such as lectures, conversation and discussions 2. Develop an ability to comprehend and analyse a speech without bias and partisanship 3. Demonstrate a positive and healthy attitude in critical situations in life 4. Prioritize their needs to achieve their goals
UG18/2S/CLS	II	Communication And Life Skills – II	<ol style="list-style-type: none"> 1. Speak and interact with others in English more comfortably 2. Express their ideas and opinions clearly using the techniques and strategies given in the syllabus 3. Identify the body language that usually reflects the mood and character of the speaker. 4. Acquire basic skills of managing stress and tensions in their life
UG18/3S/CLS	III	Communication And Life Skills – III	<ol style="list-style-type: none"> 1. Use reading sub skills and strategies to improve their reading speed and comprehension of articles 2. Acquire a robust vocabulary to articulate themselves assuredly and unmistakably 3. Develop an ability to assess the consequences of their decisions and actions 4. Develop verbal competence and behavior essential for succeeding in an interview
UG18/4S/CLS	IV	Communication And Life Skills – IV	<ol style="list-style-type: none"> 1. Apply the techniques of writing in organizing and revising ideas, and using appropriate vocabulary, to write essays, narratives, arguments etc. 2. identify their strengths and weaknesses as a writer and work on their weak areas 3. draft different types of effective and impressive resumes that highlight their potential and expectation 4. demonstrate leadership qualities and the quality of a team player to execute and manage things in professional and personal life

COURSE CODE	SEM	COURSE TITLE	COURSE OUTCOMES
HINDI			
HN18/1L/FCH	I	Optional Hindi Paper I	Acquire knowledge and writing skills in prose and functional Hindi
HN18/2L/FCH	II	Optional Hindi Paper II	Analyze society the civilization & culture through short stories & one act play.
HN18/3L/FCH	III	Optional Hindi Paper III	Analyse society the civilization & culture through Contemporary literature
HN18/4L/FCH	IV	Optional Hindi Paper IV	Acquire knowledge in Modern Literature and Language.
UG18/1N/HIN	I	Non Major Elective Basic Hindi – I	Able to read & write Hindi
UG18/2N/HIN	II	Non Major Elective Basic Hindi – II	Able to communicate with simple sentences in Hindi
SANSKRIT			
SN 18 /1L/FCS //FCSH	I	Didactic Poetry and Prose	<ol style="list-style-type: none"> 1. Recalling <i>avyayas</i> and their usage in sentences 2. Relating story from <i>Pancatantra</i> and <i>Purusha Pariksha</i>; 3. Interpretation of 20 Versus from <i>Viduraniti</i>
SN 18 /2L/FCS //FCSH	II	Classical Poetry and Prose	<ol style="list-style-type: none"> 1. Introduction to <i>Kalidasa</i> and <i>Mahakavya literature</i> 2. Interpretation of select verses from Canto XII of <i>Raghuvamsam</i>
SN 18/3L/FCS	III	Prose Literature	<ol style="list-style-type: none"> 1. Interpretation of the <i>Virata parva</i> of <i>Bharata sangraha</i> 2. Relating the history of prose literature and Mahabharata literature
SN 18/4L/FCS	IV	Rupaka Literature	Interpretation of <i>Duta vakyam</i> drama of Bhasa
UG18/1N/SAN//SANH	I	Indian Tradition	<ol style="list-style-type: none"> 1. Illustration of general ideas on Vedas and its major four divisions, Itihasas and Purana 2. Inculcating the values of our Indian Tradition
UG18/2N/SAN//SANH	II	Stotras	Able to read simple Stotras and chanting
FRENCH			
FR18/1L/FCF	I	Foundation French I	<ol style="list-style-type: none"> 1. Present herself and others in simple French. 2. Express time, date and numbers 3. Describe a place of stay and how to go there 4. Give and understand simple commands,

			<p>directions and instructions on how to move around a city</p> <p>5. Make herself understood in supermarkets and bakeries.</p>
FR18/2L/FCF	II	Foundation French II	<p>1. converse with a medical professional and in a travel agency</p> <p>2. Analyse and read the simple French Poetry</p> <p>3. understand the BD culture in France</p>
FR18/3L/FCF	III	Foundation French III	<p>1. Interpretation of the past and narrate vacations, festivals and leisure activities</p> <p>2. Analyse simple poetry and create simple poetry</p> <p>3. Discussion of Indian stories and culture in French</p>
FR18/4L/FCF	IV	Foundation French IV	<p>1. Speak of emotions, movies and novels</p> <p>2. Make comparative statements and present economic activities</p> <p>3. Use the indirect speech and the passive voice in narrating events and stories</p> <p>4. Discuss social media and the school system in France and India</p> <p>5. Discuss life in an urban set-up</p>
UG18/1N/FRE	I	Introduction to French I	<p>1. Develop basic presentations skills.</p> <p>2. Able to know basic pronunciation in French.</p>
UG18/2N/FRE	II	Introduction to French II	Apply to pursue DELF A1 studies.

BA ENGLISH

COURSE CODE	SEM	COURSE TITLE	COURSE OUTCOMES
EL18/1C/PTY	I	Poetry	<ol style="list-style-type: none"> 1. Identify and describe distinct literary characteristics of poetic forms. 2. Analyse poetic works for their structure and meaning, using correct terminology. 3. Outline the setting, situation and structure in shaping a poem's meaning 4. Broaden their vocabularies and to develop an appreciation of literature. 5. Demonstrate their ideas related to the poetic works during class and group activities.
EL18/1C/FCN	I	Fiction	<ol style="list-style-type: none"> 1. Understand and appreciate fiction and its essential elements 2. Identify the plot, structure and setting of the stories 3. Formulate the character and narration technique 4. Predict the theme, symbols and language of the fiction 5. Analyse their vocabularies and introduce the different types of novels
EL18/1A/CHL	I	Children's Literature	<ol style="list-style-type: none"> 1. Introduction to the history of Children's Literature 2. Identify and analyse the techniques and themes unique to Children's Literature 3. Understanding the changing culture of the Children's world 4. Analyzing the perspectives of the young minds 5. Identifying the current trends and the changing culture of Children's world
EL18/2C/DMA	II	Drama	<ol style="list-style-type: none"> 1. Understands the elements of Drama 2. Identify the various types and techniques involved in theatre space 3. Analyse the different types of Drama 4. Appreciate the aesthetics of various dramas 5. Trace, detect and creatively interpret the current trends in Drama
EL18/2C/ITL	II	Introduction to Linguistics	<ol style="list-style-type: none"> 1. Identify the basics of Origin of Language and concept of Linguistics

			<ol style="list-style-type: none"> 2. Outline the important Language varieties 3. Understand the basic definition of Linguistics 4. Describe the classification of speech sounds. 5. Demonstrate a clear understanding of concepts and theories introduced in the course.
EL18/2A/LAM	II	Literature And Mytholog	<ol style="list-style-type: none"> 1. Identify the various Mythologies in Literature 2. Analyse the techniques and themes unique to the study of Mythology 3. Understanding the relevance of mythology to the individual cultures of the world 4. Evaluate the various civilizations through a study of their mythology 5. Compare and contrast the acquired knowledge of basic framework of literature and myths for better enrichment
EL18/3C/BRL	III	British Literature - I	<ol style="list-style-type: none"> 1. Demonstrate a thorough knowledge of the historical and cultural background of the literary works from the Elizabethan to the Romantic Age. 2. Compare and contrast the different genres of writing. 3. Demonstrate an understanding of how writers use language in different genres 4. Critically evaluate the literature (poetry, prose, novel and drama) of the period and assess its influence on its own age and subsequent ages 5. Write analytically about the literary works of the period
EL18/3C/TWE	III	Indian Writing In English - I	<ol style="list-style-type: none"> 1. Identify the major writers of Indian literature in the Pre-Independence era 2. Compare and contrast the different genres of writing 3. Read and interpret the various movements of the age 4. Demonstrate an understanding of the themes present in Indian literature 5. Develop the ability to critically read a text
EL18/3A/LCT	III	Literary Criticism	<ol style="list-style-type: none"> 1. Demonstrate knowledge of criticism and the social contexts that produced them.

			<ol style="list-style-type: none"> Identify, analyse and apply key concepts of literary criticism. Demonstrate an understanding of the changing emphasis in the study of literature from text towards context. Identify the similarities and difference in western and Indian aesthetic approaches to literary arts.
EL18/4C/BRL	IV	British Literature -II	<ol style="list-style-type: none"> Demonstrate knowledge of the movements that influenced the literature beginning from the Victorian age to the 20th century. Distinguish and analyse the different genres of writings of the period. Critically evaluate the literary language of the texts prescribed (in poetry, prose, novel, drama and fiction) Compare the literature of the age with the subsequent ages in the history of English Literature and interpret its significance in history Exhibit the skill of analyzing literary works and writing effectively
EL18/4C/TWE	IV	Indian Writing In English - II	<ol style="list-style-type: none"> Identify the major writers of Indian literature in the Post- Independence era Compare and contrast the different genres of writing Read and interpret the various movements of the age Demonstrate an understanding of the themes present in Indian literature Develop the ability to critically read a text
EL18/4A/JNL	IV	Journalism	<ol style="list-style-type: none"> Evaluate numerical data and utilize databases for multi-layered story telling Create and edit clear, graceful, grammatically correct prose Demonstrate an awareness of journalism as an ethical practice Demonstrate preparation of an entry-level position in the profession through portfolio exhibiting their work Formulate the value of free of expression in a democracy and build their knowledge of the news industry in its many forms
EL18/5C/AML	V	American Literature - I	<ol style="list-style-type: none"> Understand the basic traits of American Literature

			<ol style="list-style-type: none"> 2. Read, interpret and analyse the works of representative writers of America 3. A thorough knowledge of trends and movements of American Literature 4. Awareness on social, historical, literary and cultural elements of the changes in American Literature 5. Comprehend the origin and growth of American Literature
EL18/5C/SHK	V	Shakespeare	<ol style="list-style-type: none"> 1. Analyse critically the works of Shakespeare 2. Illustrate the linguistic richness and figurative language of the plays 3. Relate art and reality 4. Draw comparisons between literature, theatre and films 5. Critically apply relevant forms and techniques.
EL18/5C/LAL	V	Language And Linguistics	<ol style="list-style-type: none"> 1. Show an understanding of the history of English language from the old English Period to Modern day Influence 2. Distinguish between language varieties. 3. Demonstrate some important concepts of grammar. 4. Outline the basics of Linguistics and learn classification of sounds 5. Understand sound patterns and attempt phonetic transcription of sentences
EL18/5C/WOW	V	Women's Writing	<ol style="list-style-type: none"> 1. Demonstrate knowledge of the texts, the authors and the literary and social movements that produced them. 2. Understand and analyse the representation of female/feminist experience in literature. 3. Examine and critique the role played by socio-cultural-economic contexts in defining women. 4. Respect difference and transcend binaries and extend their knowledge gained from the text to the world around them.
EL18/5E/PRC	V	Popular Culture	<ol style="list-style-type: none"> 1. Compile the underlying assumptions, power structures and moral constructs of the society 2. Create access to explore philosophical and moral issues as well as functioning on a smaller scale 3. Students can evaluate the show through various lenses

			<ol style="list-style-type: none"> 4. Assess one's own life 5. Use the things we have as entertainment, fashion and art
	V	Self Study Course – Life Writings - Autobiography	<ol style="list-style-type: none"> 1. Demonstrate knowledge of key ideas and techniques involved in personal narrative writing. 2. Extend the knowledge of varied experiences to their living 3. Apply people's skills learnt from texts. 4. Discern and respect difference and transcend binaries
	V	Self Study Course – Travel Writings	<ol style="list-style-type: none"> 1. Demonstrate a knowledge of key ideas and techniques involved in travel writing. 2. Extend the knowledge gained through reading travel writing to their living. 3. Apply people's skills learnt through travel and travel writing. 4. Discern and respect difference and transcend binaries.
EL18/6C/AML	VI	American Literature - II	<ol style="list-style-type: none"> 1. Understand the basic traits of American Literature 2. Read, interpret and analyse the works of representative writers of America 3. A thorough knowledge of trends and movements of American Literature 4. Awareness on social, historical, literary and cultural elements of the changes in American Literature 5. Comprehend the origin and growth of American Literature
EL18/6C/PCL	VI	Postcolonial Literatures	<ol style="list-style-type: none"> 1. Introduction to the Postcolonial theories 2. Understanding the histories and the past of the Postcolonial Nations 3. Identify the current political and social issues of the developed and developing countries 4. Analyse the perspectives of the writers through the various texts of the world 5. Identifying the current trends and the changing culture of Postcolonial world
EL18/6C/WLT	VI	World Literature	<ol style="list-style-type: none"> 1. Use critical thinking skills to gain insight into the cultural, historical and literary contexts of major Western and non-Western works. 2. Demonstrate the literary, historical,

			<p>social and cultural movements associated with the texts.</p> <ol style="list-style-type: none"> 3. Compare the glory of Indian writings with other writings. 4. Deepen the knowledge of contemporary world culture through literature. 5. Apply the challenges and wisdom gained in reading the South Asian texts to other intercultural encounters in academics, business, politics and community.
EL18/6C/LEN	VI	Literature And Environment	<ol style="list-style-type: none"> 1. Demonstrate complex and various representations of Nature in Green Studies. 2. Discuss different generic and formal modes of construction, including strategies for representing ecological disaster and apocalypse. 3. Utilize the skills to reflect upon and critique both the real world environmental crisis and representations of related issues by thinking with important contemporary theoretical concepts. 4. Apply appropriate critical strategies to analyze the ideological dimensions of representations of nature and ecology in literature. 5. Formulate secondary critical reading material, assessing the scholarly arguments that might contribute to their intellectual projects.
EL18/6E/SWI	VI	Subaltern Writings Of India	<ol style="list-style-type: none"> 1. Introduction to the realities of subaltern culture 2. Enabling the listener to listen to subaltern voices 3. Identify and analyse the works of writers in Subaltern literature 4. Sensitization of subaltern predicament 5. Understanding the limitations of Subaltern literature

BA ECONOMICS

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	EC18/1C/MIE	Micro Economics	<ol style="list-style-type: none"> 1. Summarize Definition, Methods and Basic concepts in Micro Economics. 2. Differentiate the behaviour of consumers and producers in theory and practice. 3. Get an insight into the contribution of Nobel Laureates. 4. Distinguish Market structures like Perfect and Imperfect Competitions. 5. Gain practical knowledge on market structures along with Factor pricing theories.
I	EC18/1C/BME	Basic Mathematics for Economics	<ol style="list-style-type: none"> 1. Use equations, diagrams and graphs to analyze economic relationships 2. Apply matrices in solving problems in Economics 3. Use determinants for solving mathematical problems 4. Differentiate open and closed input models and the working of the economy 5. Assess the behaviour of individuals, businesses and companies in decision making
I	EC18/1A/BAY	Basic Accountancy	<ol style="list-style-type: none"> 1. Prepare the objectives of Accounting and Book keeping. 2. Categorize the various subsidiary books of account and identify & rectify errors 3. Prepare income and expenditure statement and balance sheet. 4. Tabulate Bank Reconciliation Statement. 5. Apply software packages in accounting.
I	EC18/1N/TNP	Training for Bank & TNPSC Examinations	<ol style="list-style-type: none"> 1. Assimilate general knowledge on current affairs 2. Solve problems in Logical & Verbal Reasoning. 3. Analyse Current Issues.
II	EC18/2C/MAE	Macro Economics	<ol style="list-style-type: none"> 1. Classify the components of National Income. 2. Learn the Classical and Keynesian theories. 3. Explain the Integration of Monetary and Real Sectors. 4. Analyse investment Function and the interaction of Multiplier & Accelerator. 5. Estimate the Consumption and Saving

			Functions.
II	EC18/2C/CFE	Calculus For Economics	<ol style="list-style-type: none"> 1. Apply Differentiation in Economics 2. Determine the value of derivatives and its economic applications 3. Apply partial derivatives in Economics 4. Determine calculus of multivariable functions in Economics 5. Gain knowledge of the basic theorems of integration
II	EC18/2A/MBI	Modern Banking and Insurance	<ol style="list-style-type: none"> 1. Have knowledge on the various types of banks. 2. Evaluate the new technologies adopted in the banking sector 3. Analyse the new trends in banking. 4. Get knowledge about various types of insurance and risk associated to it. 5. Assess various types of life insurance policies.
II	EC18/2N/QSI	Questionnaire and Social Issues	<ol style="list-style-type: none"> 1. State the concept of statistical survey and various sources of data. 2. Frame and elicit information from questionnaire 3. Learn the art of report writing
III	EC18/3C/MOE	Monetary Economics	<ol style="list-style-type: none"> 1. Learn the Various functions and classification of money. 2. Explain the concept of Demand for Money and its theories 3. Describe the Functions of Central Bank and its methods to control credit activities. 4. Distinguish the features of Commercial Banks and its recent Reforms. 5. Gain knowledge on Inflation, Deflation and its effects along with Trade Cycle.
III	EC18/3C/SFE	Statistics for Economics	<ol style="list-style-type: none"> 1. Calculate and interpret the various descriptive measures of Centrality and Dispersion, Correlation, Linear Regression model. 2. Measure CPI and WPI of a country over the time period. 3. Have an in-depth knowledge on the association between the attributes. 4. Summarize the basic probability rules and provide an understanding on theoretical distributions. 5. Acquire knowledge on the application of test of Hypotheses in Research in Economics (Social Science)
III	EC18/3A/RUE	Rural Economics	<ol style="list-style-type: none"> 1. Recall the Rural Economy and its features, social characteristics and Trade.

			<ol style="list-style-type: none"> 2. Interpret the employment, effects of joblessness, output capacity, economic shortfalls, and its effects. 3. Have an understanding of issues confronting rural economy related to debts, sales, profit, protection cover, loans and sources. 4. Review planning, and infrastructural support, Government schemes for housing, employment and livelihood in India 5. Obtain knowledge on collective industrial development models and Government framework for Rural Development.
IV	EC18 /4C/INE	International Economics	<ol style="list-style-type: none"> 1. Use analytical tools of International Economics 2. Identify the importance of International trade theories and its current relevance 3. Differentiate the system of Free trade and protection and the effects of tariffs 4. Analyse the various causes of disequilibrium in Balance of Payments and the objectives of NIEO 5. Discuss the role of Financial institutions and the recent summits on Brexit, SAARC and G20
IV	EC18/4C/BAE	Basic Econometrics	<ol style="list-style-type: none"> 1. Differentiate between PRF and SRF and understand the importance of Stochastic Disturbance term. 2. Apply the properties of Least Squares and the Gauss Markov Theorem in the Precision of two variable Regression Model 3. Estimate the Beta Coefficients in Multiple Regression Model and coefficient of determination R^2 4. Analyse the consequences of Multicollinearity, Heteroscedasticity and Autocorrelation in the Multiple Regression model 5. Categorize the functional forms of Regression model and the importance of Dummy variable in ANOVA and ANCOVA models.
IV	EC18/4A/URE	Urban Economics	<ol style="list-style-type: none"> 1. Gain knowledge on City centric economic activities, development and growth parameters. 2. Estimate housing sector demands, the role of Government, distress shelters and Restoration of livelihoods.

			<ol style="list-style-type: none"> 3. Have knowledge on urban area dynamics, kinds of area classification and commerce based community spaces in current global scenario. 4. Categorize the trends observed in urban development. 5. Assess the infrastructure necessities and Local bodies.
V	EC18/5C/DEI	Development of Economic Ideas	<ol style="list-style-type: none"> 1. Classify the view point of economists and the Origin and development of economic ideas.. 2. Relate to development of economic theory of Classical, Historical and Marxian schools of Economic thought. 3. Examine the ideas of Alfred Marshall and other welfare Economists. 4. Recall Keynesian Economic ideas 5. Gain knowledge on the perspectives of Indian Economists
V	EC18/5C/IEY	Indian Economy	<ol style="list-style-type: none"> 1. Assess the basic characteristics of Indian economy and the demographic transition. 2. Make a diagnosis on the factors related to poverty and unemployment. 3. Categorize the components of National Income. 4. Appraise health sector and the progress in educational sector. 5. Debate on various government schemes for development.
V	EC18/5C/OPR	Operations Research	<ol style="list-style-type: none"> 1. Describe the scope and characteristics of operations research. 2. Learn to maximise profit and minimise cost 3. Take appropriate decisions under conditions of risk and uncertainty. 4. Assess the role of CPM and PERT in project chosen within a time span. 5. Enhance the entrepreneurial skill and steps in cost reduction.
V	EC18/5C/FIE	Fiscal Economics	<ol style="list-style-type: none"> 1. Understand the concept of Public Finance. 2. Role of Taxation in the economy. 3. Understand the various sources of Public Revenue. 4. Understand the Classification and Growth of Public Expenditure. 5. Analyse the trends in Deficit Financing and the challenges in Public Debt in India.
V	EC18/E1/HES	Health Economics	<ol style="list-style-type: none"> 1. Define the importance of health

			<p>indicators.</p> <ol style="list-style-type: none"> 2. Evaluate the components of demand and supply of health care. 3. Estimate Health expenditure, importance of Health insurance and Health policy. 4. Review the existing health infrastructure and Budget Allocation. 5. Trace the growth of Medical tourism in India.
V	EC18/E1/IDE	Industrial Economics	<ol style="list-style-type: none"> 1. Explain the concepts of industrial economics and determinants of measurement in industrial efficiency. 2. Analyse the theories of Industrial Economics. 3. Examine tools and factors influencing industrial and labour productivity 4. Assess the strategies of innovation and its measurement. 5. Evaluate new industrial policies and its impact in our economy.
V	EC18/E1/POM	Principles of Marketing	<ol style="list-style-type: none"> 1. Recognize the significance and functions of marketing 2. Get an insight of the various steps related to marketing 3. Gain knowledge about market segmentation and production 4. Identify the methods adopted for standardization of agricultural products 5. Analyse the recent development in marketing
VI	EC18/6C/ENE	Environmental Economics	<ol style="list-style-type: none"> 1. Examine the importance of conservation of resources 2. Identify the effect of externalities 3. Have the ability to solve environmental problems through fiscal techniques 4. Classify the various tools available in evaluating the environment 5. Formulate policies to conserve natural resources
VI	EC18/6C/TNE	Tamil Nadu Economy	<ol style="list-style-type: none"> 1. State the basic features of Tamil Nadu Economy. 2. Understand the trends in the Growth of population in Tamil Nadu. 3. Interpret the importance of Cropping pattern and Agricultural Marketing in Tamil Nadu. 4. Compare the relative importance of large and small industries in Tamil Nadu. 5. Study the features of Transport Network in Tamil Nadu

VI	EC18/6C/CAE	Computer Applications in Economics	<ol style="list-style-type: none"> 1. Outline the basic concepts of computer peripherals, primary and secondary memory and functions of operating system 2. Apply MS Word in Economics. 3. State the importance of Data analysis using Excel, Creating formulae using mathematical and statistical functions in Business analysis 4. Develop the presentation skills using Power Point, design templates with animation effects in slideshow. 5. Explore the World Wide Web using Internet terminologies.
VI	EC18/E2/MNE	Managerial Economics	<ol style="list-style-type: none"> 1. Explain the models and analyse case studies 2. Assess the various methods of inventory control 3. Discuss the role played by Government in market economy. 4. Analyse the risks involved in projects 5. Identify Economic and Business forecasting techniques
VI	EC18/E3/AGE	Agricultural Economics	<ol style="list-style-type: none"> 1. Assess the importance of Agriculture and its trends on Agricultural growth in India. 2. Evaluate the Cropping Patterns and its growth along with Organic Farming. 3. Gain in-depth knowledge about the recent Land reform measures and issues related to Marginal and Small farmers along with Gender issues in Agricultural Sector. 4. Appraise the Employment scenario in Agricultural sector and Non- Agricultural Sector and its determinants. 5. Review the employment trends in agricultural and non-agricultural sectors and identify the agricultural credit facilities and institutions contribution towards agricultural finance.
ALLIED SUBJECTS FOR- I B. Com CS, II B.Com (General) & II B.A(History)			
I	EC18/1A/BUE	Business Economics	<ol style="list-style-type: none"> 1. Utilize the basic Concepts of Business Economics to solve challenges in Business 2. State demand & its determinants. 3. Gain knowledge on various Market Structure and their Pricing behaviour. 4. Diagnose the various Pricing policies and Strategies. 5. Discuss the concept of Inflation and Deflation along with Business Cycle.
II	EC18/2A/ITR	International Trade	<ol style="list-style-type: none"> 1. Identify the basic difference between

			<p>Inter-regional and International Trade</p> <ol style="list-style-type: none"> 2. Understand the basic theories of International Trade 3. Gain knowledge on Foreign exchange market and its effects. 4. Understand the various types of Tariffs and the working and regulations of MNC'S in India. 5. Explain the various International Financial Institutions and its contributions in developing countries
III	EC18/3A/PRE	Principles of Economics	<ol style="list-style-type: none"> 1. Explain meaning, types, laws and the theories of Consumer Behaviour. 2. Summarize Production, its types, laws, functions and properties. 3. Derive Revenue, Cost and Output functions and the relation between the Average, Marginal and the Total functions. 4. Compare the features of perfect and Imperfect Market structure. 5. Analyse and predict price fluctuations, controls with the aid of theories of trade cycles.
IV	EC18/4A/ ITE	International Economics	<ol style="list-style-type: none"> 1. Identify the basic difference between Inter-regional and International Trade 2. Understand the basic theories of International Trade 3. Gain knowledge on Foreign exchange market and its effects. 4. Understand the various types of Tariffs and the working and regulations of MNC'S in India. 5. Explain the various International Financial Institutions and its contributions in developing countries
III	EC18/3A/INY	Indian Economy	<ol style="list-style-type: none"> 1. Differentiate various economic and non-economic factors that determine economic growth and development of Indian economy. 2. Identify the importance of Physical and Human Capital for Economic Development of the country. 3. Analyse recent trends in different methods of measurement in national income. 4. Appraise the issues related to Poverty and Unemployment and understand relevant policy implications to combat these

			problems. 5. Know the importance of Agricultural sectors in Indian Economy.
IV	EC18/4A/TNY	Tamil Nadu Economy	<ol style="list-style-type: none"> 1. Recall the basic features of Tamil Nadu Economy and its potential on natural resources. 2. Identify the Demographic features and analyse the issues related to population growth in Tamil Nadu. 3. Gain knowledge on the importance of irrigation for agricultural development 4. Have basic knowledge on classification of Industries in India and its contribution to the state economy 5. Identify the Social, Education and Health policies introduced by the Government of Tamil Nadu.

BA HISTORY

COURSE CODE	SEM	COURSE TITLE	COURSE OUTCOMES
HS18/IC/MCI	I	Main Currents in India Upto 1206	<ol style="list-style-type: none"> 1. Analyse and examine sources of the Indian History. 2. Examine and identify the social, economic and political conditions of Vedic Age. 3. Recognizes the Administration, Art and Architecture of Mauryas, Sathavahanas and Kushans. 4. Comprehends the conquests and rule of Guptas, Harshavardhana, Chalukyas and Rajputs. 5. Explore the effects of Muslim Invasions (Mohammed of Ghazni, Muhammed Ghor) in India.
HS18/IC/HMI	I	History of Early Medieval India	<ol style="list-style-type: none"> 1. Analyse and examine sources of the History of Delhi Sultanate. 2. Examine and identify the social, economic and political conditions of Khilji Dynasty. 3. Recognizes the Administration, Art and Architecture of Tughluq Dynasty. 4. Comprehends the conquests and rule of Sayyids and Lodis. 5. Explore the socio-political and economic causes of Vijayanagar and Bahmani Kingdoms of South India.
HS18/IA/SIH	I	Survey of Indian History	<ol style="list-style-type: none"> 1. Analyse and examine the rise of Nationalism in India. 2. Examine the movements in the First Phase of Nationalism. 3. Recognizes the leaders and their role in

			<p>the Second Phase of Nationalism.</p> <ol style="list-style-type: none"> 4. Comprehends the Struggle for Independence from 1919-1947. 5. Explore the proposals brought to India on the eve of Independence.
HS18/1N/BRW	I	Basic Rights of Women	<ol style="list-style-type: none"> 1. Analyse and examine the origin of Women's Rights in India. 2. Examine the relation between Women and Law. 3. Recognizes the women in various occupations.
HS18/2C/HMI	II	History of Later Medieval India	<ol style="list-style-type: none"> 1. Analyse and examine the administrative system of Later Medieval rulers. 2. Examine the policies and administration of Akbar the Great. 3. Recognizes the Administration, Art and Architecture of Jahangir, Shah Jahan and Aurangzeb. 4. Comprehend the Rise of Marathas. 5. Explores the Society, Economy and Culture of Later Medieval India.
HS18/2C/HMI	II	History of Modern India Upto 1858	<ol style="list-style-type: none"> 1. Analyse and examine the Advent of the Europeans to India. 2. Examine the growth of British East India Company. 3. Recognizes the Native resistance shown by Indians to Europeans. 4. Comprehend the Company's Policies towards Indians. 5. Explores the Causes, Course and Consequence of the Great Revolt.
HS18/2A/SCI	II	Survey of Contemporary India 1950-2000	<ol style="list-style-type: none"> 1. Analyse and examine the Foundations of Independent India. 2. Examine the growth of India from Lal Bahadur Shastri to Indira Gandhi. 3. Recognizes the Economic Reforms under different Prime Ministers. 4. Comprehends the Prime Ministership of P.V. Narasimha Rao to Atal Behari Vajpayee. 5. Explores the role and significance of Planning in India.
HS18/2N/HTN	II	History of Tamil Nadu for Competitive Exams	<ol style="list-style-type: none"> 1. Analyse and examine the Society and Culture of Tamil Nadu. 2. Examine the growth of Freedom Movement in Tamil Nadu. 3. Recognizes the growth of Dravidian parties and their role in the politics of Tamil Nadu.
HS18/3C/INM	III	Indian National	<ol style="list-style-type: none"> 1. Analyse and examine the Emergence of

		Movement 1858-1947	<p>Indian Nationalism.</p> <ol style="list-style-type: none"> 2. Examine the growth of Nationalism in India. 3. Recognizes the Struggle for Independence and the proposals given by the British to Indians. 4. Comprehends the rise of Muslim Nationalism in India. 5. Explores the efficiency of India on the threshold of Independence .
HS18/3C/HTN	III	History of Tamil Nadu Upto 1565	<ol style="list-style-type: none"> 1. Analyse and examine the Geography of Tamil Nadu and the Sources for the study of Tamil Nadu. 2. Examine the growth of Pallavas of Kanchi. 3. Recognizes the Administration, Economy, Art and Architecture of the Imperial Cholas. 4. Comprehends the rise of Later Pandyas. 5. Explores the efficiency of Tamil Nadu under Vijayanagar Empire.
EL18/4F/FEN	IV	History of Contemporary India	<ol style="list-style-type: none"> 1. Analyse and examine the Foundations of Independent India. 2. Examine the development of India under Lal Bahadur Shastri to Indira Gandhi. 3. Recognizes the Era of Economic Reforms under Rajiv Gandhi to Chandrashekar. 4. Comprehends the Prime Ministership of P.V. Narasimha Rao to I.K. Gujral. 5. Explores the efficiency of Planning Commission in India.
HS18/4C/HCI	IV	History of Tamil Nadu 1565-1947	<ol style="list-style-type: none"> 1. Analyse and examine the growth of Tamilagam under Nayaks. 2. Examine the growth European Settlers in Tamilagam. 3. Recognizes the Consolidation of British Power. 4. Comprehends the rise of Early Political Organizations in Tamil Nadu. 5. Explores the efficiency of Tamil Nadu in the National Movement.
HS18/5C/HEU	V	History of Europe 1789-1871	<ol style="list-style-type: none"> 1. Analyse and examine the causes, course and consequence of the French Revolution. 2. Examine the Rise of Napoleon. 3. Recognizes the Era of Congress with the Revolution of 1830 and 1848 in France 4. Comprehends the Eastern Question and the Ottoman Empire. 5. Explores the efficiency of the Unification

			of Germany, Italy and Napoleon III.
HS18/5C/HCI	V	History of China and Japan	<ol style="list-style-type: none"> 1. Analyse and examine the causes, course and consequence of the First World War in East Asia. 2. Examine the condition of China between the World Wars. 3. Recognizes the role of Japan between the World Wars. 4. Comprehends the position of China and Japan in the Second World War. 5. Explores the efficiency of Contemporary China and Japan.
HS18/5C/MMI	V	Makers of Modern India	<ol style="list-style-type: none"> 1. Analyse and examine the philosophy of the great social thinkers. 2. Examine the ideologies of Religious Reformers. 3. Recognizes the role of Early Political Thinkers. 4. Comprehends the position of Political Thinkers in India. 5. Explores the efficiency of Communists in India's Development.
HS18/5E/CPH	V	Concepts and Principles of Human Rights	<ol style="list-style-type: none"> 1. Analyse and examine the Definition and Historical Evolution of Human Rights. 2. Examine the Declarations of International Human Rights. 3. Recognizes the role of Human Rights in the Indian Constitution. 4. Comprehends the Issues in Human Rights. 5. Explores the effectiveness of Human Rights of the Marginalized.
HS18/5E/BOA	V	Basics of Archaeology	<ol style="list-style-type: none"> 1. Analyse and examine the Meaning and Definition of Archaeology. 2. Examine the Kinds of Archaeology. 3. Recognizes the relation between Archaeology and Sciences. 4. Comprehends the Principles and Methods of Exploration and Excavation. 5. Explores the Growth and History of Archaeology in India.
	V	Self Study Papers Modern Governments	<ol style="list-style-type: none"> 1. Enables critical analysis the constitution of England 2. Enables critical analysis the constitution of USA 3. Enables critical analysis the constitution of Switzerland 4. Enables critical analysis the constitution of France 5. Helps to understand the socio-political issues and origin of Indian Constitution

HS18/6C/HEU	VI	History of Europe 1871-1945	<ol style="list-style-type: none"> 1. Analyse and examine the condition of Europe on the Eve of World War I. 2. Examine the cause, course and consequence of World War I. 3. Recognizes the position of Europe between the Wars. 4. Comprehends the Rise of Dictatorship. 5. Explores the effects of World War II in Europe.
HS18/6C/HUS	VI	History of USA	<ol style="list-style-type: none"> 1. Analyse and examine the Colonisation and Liberation of USA. 2. Examine the Industrial development and progressive movement. 3. Recognises the role of USA in World War I. 4. Comprehends Normalcy and Inter-war Period. 5. Explores the effects of World War II in USA.
HS18/6C/CTN	VI	Contemporary Tamil Nadu	<ol style="list-style-type: none"> 1. Analyse and examine the Sources for Contemporary Tamil Nadu. 2. Examine the development in the Political History of Tamil Nadu. 3. Recognizes the Socio Cultural History of Tamil Nadu. 4. Comprehends the Economic History of Tamil Nadu. 5. Explores the Culture of Tamil Nadu.
HS18/6C/WSS	VI	Women's Studies	<ol style="list-style-type: none"> 1. Analyse and examine the Concept and Principles of Women Studies. 2. Examine the rise of Women's Movements. 3. Recognises the relation between Women and the Law. 4. Comprehends the Women in public life. 5. Explores the Rights for Women in Indian Constitution.
HS18/6E/SCC	VI	Socio-Cultural History of Chennai	<ol style="list-style-type: none"> 1. Analyse and examine the Origin and Growth of Madraspatanam. 2. Examine the Distinct Art and Culture of Chennai. 3. Recognises the uniqueness of the Architecture of Chennai. 4. Comprehends Tourism and Recreation in Chennai. 5. Explores the effectiveness of Food and Health care in Chennai.

BA TTM

COURSE CODE	SEM	COURSE TITLE	COURSE OUTCOMES
TM18/1C/HOT	I	History of Tourism	<ol style="list-style-type: none"> 1. Analyze Tourism as an industry. 2. Assess the activities of tourism from ancient till medieval times. 3. Discuss the role of trade routes in the growth of Tourism. 4. Examine the impact of World Wars on tourism in later medieval period. 5. Discuss on the contemporary role of Tourism concept.
TM18/1C/TCP	I	Tourism Concepts and Principles	<ol style="list-style-type: none"> 1. Analyze the significance and growth of Tourism. 2. Obtain knowledge on tourism business. 3. Discuss various tourism administrative organizations in India. 4. Evaluate the need for tourism planning. 5. Assess the various impacts of tourism industry.
TM18/1A/TGE	I	Tourism Geography	<ol style="list-style-type: none"> 1. Compile tourism with Geography. 2. Identify various political features of India. 3. Discuss the various physical features of the country. 4. Identify knowledge on the weather, climate and features of Indian Monsoon. 5. Utilize geography of tourism and Aviation
TM18/1N/HRO	I	Heritage Organizations	<ol style="list-style-type: none"> 1. Analyze the significance of Heritage. 2. Discuss the various roles of national and international heritage organizations. 3. Explain heritage development aspects in major heritage destinations.
TM18/2C/TRI	II	Tourism Resources in India	<ol style="list-style-type: none"> 1. Discuss the Tourism resources in India. 2. Compare the natural and man-made tourism resources. 3. Identify the features of culture as tourism resources. 4. Create knowledge on fairs and festivals in India. 5. Discuss the various arts and artifacts of modern India.
TM18/2C/IAR	II	Indian Architecture	<ol style="list-style-type: none"> 1. Analyze the architectural importance during ancient historic periods. 2. Identify the various types of temple architecture. 3. Explain cave architecture destinations in India. 4. Create knowledge on the features of Indo-Islamic architecture. 5. Discuss the various destinations under

			Colonial architecture.
TM18/2A/SCT	II	Socio Cultural Tourism in India	<ol style="list-style-type: none"> 1. Analyze the social life prevailed in ancient India. 2. Identify the various cultural practices. 3. Discuss the different traditional customs in India. 4. Create knowledge on the distinct festivals existing in the nation. 5. Discuss the diverse cultural ceremonies of the country.
TM18/2N/ETT	II	Emerging Trends in Tourism	<ol style="list-style-type: none"> 1. Create tourism as an industry for economical significance. 2. Analyze the various positive and negative impacts of the industry. 3. Evaluate the evolving trends in the various forms of Tourism.
TM18/3C/TMG	III	Tourism Marketing	<ol style="list-style-type: none"> 1. Assess the special features of marketing in a tourism product. 2. Identify the skills of various methods of performing effective tourism marketing functions. 3. Apply the role of sales support techniques in promoting the product. 4. Discuss the different international travel and trade fairs for industrial enhancement. 5. Identify the updates of the industry and the role of MICE in Tourism business
TM18/3C/EVM	III	Event Management	<ol style="list-style-type: none"> 1. Discuss the basics of event management. 2. Create knowledge on the different categories of events and their characteristics. 3. Evaluate the effectiveness of the role of planning and organizing an event. 4. Create an insight into the functions and relevance of event management to tourism. 5. Identify the security measures and discuss the protocols on professional outcome of an event.
TM18/3A/HRM	III	Human Resource Management	<ol style="list-style-type: none"> 1. Outline the human resource management significance in an organisation 2. Communicate the process of human resource management planning 3. Create knowledge on various human resource process and practices 4. Discuss Job evaluation methods and its impact on the company 5. Identify evolving trends in Human resource management.
TM18/4C/TIM	IV	Travel Intermediaries Management	<ol style="list-style-type: none"> 1. Identify the role of travel intermediaries in the Industry.

			<ol style="list-style-type: none"> 2. Discuss the global organizations associated with travel Industry 3. Create knowledge on travel services and costing process. 4. Compare different types of travel forms and its scope. 5. Discuss the role of information technology in tourism sector.
TM18/4C/APM	IV	Airport Management	<ol style="list-style-type: none"> 1. Discuss Aviation as a fastest growing industry with importance to major airlines. 2. Discuss the different roles performed by the aviation administrative organizations. 3. Create knowledge on the civil aviation authorities. 4. Identify the formalities and irregularities involving air travel. 5. Analyze the airport management structure.
TM18/4A/FAR	IV	Fundamentals of Archaeology	<ol style="list-style-type: none"> 1. Create knowledge on nature and scope of archaeology. 2. Discuss latest trends in archaeological studies. 3. Analyze the science behind archaeology. 4. Identify principles and methods involved in excavation. 5. Discuss the growth and History of Indian archaeology.
TM18/5C/POM	V	Principles of Management	<ol style="list-style-type: none"> 1. Create knowledge on nature and importance of management principles. 2. Evaluate need for the process of planning in management. 3. Discuss the importance of organizing and staffing. 4. Identify the need for effective communication in management. 5. Assess the significance of co-ordination and control in an organization.
TM18/5C/HMC	V	Hotel Management and Catering	<ol style="list-style-type: none"> 1. Analyze various aspects of hotel industry. 2. Compare the various classifications of catering establishments. 3. Explain the pattern designing of menus and its planning process. 4. Discuss the varieties of food and beverage services in hotels and other outlets. 5. Identify the opportunities and trends in hospitality industry.
TM18/5C/ATF	V	Air Ticketing and Fare Construction	<ol style="list-style-type: none"> 1. Create theoretical knowledge on Air transport. 2. Analyze various regulations on International airlines. 3. Obtain knowledge on basic elements

			<p>associated with air travel.</p> <ol style="list-style-type: none"> Discuss various norms followed in fare construction. Assess the formalities and documents needed for the air travel
TM18/5E/CIT	V	Computer Networking and Information Systems in Tourism	<ol style="list-style-type: none"> Create basic knowledge on functions of computer systems. Analyze various automated communication systems. Create knowledge on recent technological developments in tourism. Identify various types of E-Tickets. Evaluate Information system and computer networking in tourism.
TM18/5E/MTM	V	Medical Tourism	<ol style="list-style-type: none"> Acknowledge information on medical tourism destinations Understand the significance of health care system in India Familiarize legal aspects of medical tourism Analyze scope and opportunities of medical tourism market Inculcate the future scope and trends in medical tourism
	V	Self-Study Shipping And Cargo Management	<ol style="list-style-type: none"> Create deeper knowledge on logistics role in economy. Analyze the different critical issues in logistics outsourcing. Identify various techniques in materials management. Analyze the role of packaging in logistics. Discuss the contemporary trends in global logistics.
TM18/6C/GTM	VI	Global Tourism	<ol style="list-style-type: none"> Create deeper knowledge on the different destinations in America and Australia. Analyze the different destinations under the European Countries. Identify various destinations under Africa and Middle East. Analyze the role of destinations in Asia with special reference to South East Asia. Discuss the contemporary issues faced by Tourism industry globally.
TM18/6C/FOM	VI	Front Office Management	<ol style="list-style-type: none"> Identify the basic departments operated in front office. Create knowledge on the front office communication and tariff structure in a hotel. Prepare the skills required in handling a guest taking up the hotel service.

			<ol style="list-style-type: none"> Utilize the skill of auditing and accounting required to handle front desk. Analyze the role of security management for guest safety.
TM18/6C/HTL	VI	Human Rights and Tourism Legislations	<ol style="list-style-type: none"> Identify the significance and classifications of Human Rights Utilize the information on the different international human rights legislations. Discuss the role of Human Rights in India. Analyze the significance of legislations related to Tourists travelling to international countries. Communicate Tourism without damaging the environment, and to be aware of the existing rights and duties
TM18/6C/ETM	VI	Eco Tourism	<ol style="list-style-type: none"> Understand the significance of Eco tourism globally. Analyze the relationship of ecology in practices of tourism. Determine the various impacts of Eco-tourism on the environmental factors. Familiarize with the planning strategies of the organizations involved in Eco Tourism. Upgrade the knowledge of business activities involved in Eco Tourism.
TM18/6E/ORB	VI	Organizational Behaviour	<ol style="list-style-type: none"> Analyze the nature and scope of organizational behavior. Discuss the various and different techniques of organizational behavior. Identify the features of Individual behavior in an organizational functioning. Discuss the importance of group behavior in planning effective organizational function. Assess the skills on enhancing organizational culture and climate.

BSC CHEMISTRY

COURSE CODE	SEM	COURSE TITLE	COURSE OUTCOMES
CH18/1C/GC1	I	Core 1-General Chemistry I	<ol style="list-style-type: none"> 1. Gain knowledge in valence bond and molecular orbital treatment to explain chemical bonding in molecules. Predict the shapes of molecules based on VSEPR theory 2. Learn the principles of qualitative analysis of cations and anions and theory behind quantitative Analysis – Volumetric and Gravimetric 3. Utilize the concept of hybridisation to explain shapes of simple organic molecules. Gain in-depth knowledge on polar effects and its applications, structure and stability of short lived intermediates 4. State and explain the first law of thermodynamics and its applications , principles of thermochemistry, calculate bond energy and derive Kirchoff equation 5. Explain Henrys law, Raoult's law , binary solutions – miscible and immiscible and their behaviour
CH18/2C/PR1	I & II	*Core Practical 1– Volumetric Analysis	<ol style="list-style-type: none"> 1. Develop skills in volumetric estimation and prepare solutions of various molar concentrations. 2. Apply the knowledge of pH to choose indicators for various types of volumetric analysis. 3. Understand the principle behind each volumetric experiment
CH18/2C/GC2	II	Core 2-General Chemistry II	<ol style="list-style-type: none"> 1. Gain knowledge on the fundamental particles of nucleus, stability, structure of nucleus and radioactivity 2. Explain the mechanism of electrophilic and free radical addition to alkenes alkynes and dienes. Classify dienes , kinetic and thermodynamic control of reaction 3. Apply Huckel's rule and differentiate between aromatic, antiaromatic and non aromatic compounds. Gain knowledge on the mechanism of aromatic, electrophilic , aliphatic nucleophilic substitution and elimination reactions

			<ol style="list-style-type: none"> Utilise the Second Law of Thermodynamics to predict the spontaneity of physical and chemical changes and to understand the concept of entropy and to learn the fundamental equations of thermodynamics Understand the idea about partial molar properties, Derive Gibbs Duhem equation ,variation of chemical potential with temperature and pressure and III law of thermodynamics
CH18/2C/PR1	I & II	*Core 3 Practical 1–Volumetric Analysis	<ol style="list-style-type: none"> Develop skills in volumetric estimation and prepare solutions of various molar concentrations. Apply the knowledge of pH to choose indicators for various types of volumetric analysis. Understand the principle behind each volumetric experiment
Part – III CH18/3C/OC1	III	Core 4- Organic Chemistry I	<ol style="list-style-type: none"> Compare the acidic character of alcohols and Phenols and understand the electrophilic substitution reactions of phenols Learn the mechanism of nucleophilic addition to carbonyl compounds and reactions of active methylene compounds Explain the preparation and properties of saturated and unsaturated dicarboxylic acids and heterocyclic compounds Gain knowledge on the reactions of nitro compounds, amines and synthetic application of diazonium salts. Learn the preparation and uses of various dyes Gain knowledge on the preparation and properties of different amino acids, synthesis of peptides, structure of proteins and functions of nucleic acids
CH18/5C/IC1	IV	Core 5-Inorganic Chemistry I	<ol style="list-style-type: none"> Identify the different extraction methods -concentration, reduction and refining processes and apply it for Ti, V, Cr and Nickel. Gain knowledge on the preparation,

			<p>properties and applications of polymers</p> <ul style="list-style-type: none"> - polysiloxanes, polysilanes, polysilicates <ol style="list-style-type: none"> 3. Demonstrate the important applications of Cast iron, Plain carbon, Alloy steels, Copper, Aluminium and their alloys. 4. Explain the extraction and separation techniques of Inner transition elements such as thorium and uranium 5. Identify the different elements of symmetry, predict the point group - (C_{2v}, C_{3v} & C_{2h} only) and to determine the structures of few crystal systems
CH 18/4C/PR2	III & IV	*Core 6- Practical 2- Inorganic Qualitative Analysis	<ol style="list-style-type: none"> 1. Achieve skill in analysing the inorganic mixture systematically containing the two anions (interfering and non – interfering) 2. Separate the two common cations under individual group separation and analyze the mixture for the cations present. 3. Write and submit a report on the systematic analysis of the inorganic mixture
CH18/5C/PHY	V	Core 7- Physical Chemistry	<ol style="list-style-type: none"> 1. Perform calculations using mathematical equation that describes colligative effects .Understand Nernst distribution law and causes for deviation from law 2. Acquire in-depth knowledge about ionization of acids and bases , solve problems related to ionization, pH , solubility product and buffer solutions 3. Explain various photochemical laws and Jablonski diagram depicting various photophysical methods 4. Analyse the need for quantum mechanics and the failure of classical mechanics, solve simple eigen value problems by using operator algebra and familiarise Schrodinger Wave equation 5. Acquire knowledge of various components of system and learns basic terms of phase equilibria, plots of simple and compound phase diagram

CH18/5C/OC2	V	Core 8-Organic Chemistry II	<ol style="list-style-type: none"> 1. Explain the concept of stereochemistry , apply Cahn Ingold Preglog rules to assign stereo chemical descriptors R &S and E&Z . Concept of racemisation, resolution and asymmetric synthesis 2. Classify carbohydrates , understand the constitution and structure of monosaccharides , structure and properties of di and poly saccharides, interconversion of monosaccharides 3. Understand the concept of conformational analysis of acyclic alkanes and cyclohexane and draw energy profile diagram 4. Classification of molecular rearrangements , mechanism of various molecular rearrangement reactions and its applications 5. Elucidate the structure of few natural products -Alkaloids , terpenoids and water soluble vitamins
CH18/5C/IC2	V	Core 9- Inorganic Chemistry II	<ol style="list-style-type: none"> 1. Apply crystal field theory to describe magnetic properties of coordination, compounds, stability of metal complexes and calculate thermodynamic parameters 2. Create an overview knowledge on the stereochemistry of coordination compounds and elucidate the structure of metal complexes 3. Formulate various extraction and separation techniques of transition metals. 4. Explain and demonstrate the relationship between chemistry and biology in metabolic pathway 5. Apply the knowledge about structure, bonding, stability and reactivity of simple organometallic complexes
CH18/5C/ANC	V	Core 10-Analytical Chemistry	<ol style="list-style-type: none"> 1. Analyse data and prepare reports with precision and accuracy 2. Utilize the principle and Instrumentation of Thermo analytical techniques in examining the thermal

			<p>behaviour of complexes</p> <ol style="list-style-type: none"> 3. Demonstrate Electroanalytical methods and apply them in relevant fields 4. Explain the preparation and separation techniques of various compounds. 5. Compute the various volumetric parameters and constants employing Basic C-programs and Internet usage
CH18/5E/SPE	V	Elective 1 - Spectroscopy	<ol style="list-style-type: none"> 1. Understand the principle, instrumentation and applications of infrared spectroscopy in functional group identification and quantitative applications 2. Comprehend the principle, instrumentation and applications of Raman Spectroscopy 3. Outline the basic principle, Instrumentation technique and applications of UVspectroscopy 4. Explain the theory, Instrumentation and applications of NMR spectroscopy 5. Summarise the basic principle and theory behind Mass spectra and understand McLafferty rearrangement
CH18/5S/POC	V	Polymer Chemistry	<ol style="list-style-type: none"> 1. Gain depth knowledge on various types of polymerization method 2. Learn to characterize polymers by various techniques such as spectroscopy, XRD and microscopy 3. Correlate the structure of polymers with their properties 4. Describe different polymer processing techniques 5. Acquire knowledge regarding the application of functional and biomedicalpolymers
CH18/5S/FOC	V	Food Chemistry	<ol style="list-style-type: none"> 1. Explain various sources, constituents of food and usage of food in relation tohealth 2. Understand the concept of balanced diet and create awareness about nutritional requirements 3. Discuss the effect of modern food & beverages on social problems 4. Assess food adulteration, its causes and remedies for the problems 5. Discuss the importance of food

			preservation and quality control in Food chemistry
CH18/6C/APC	VI	Core 11-Applied Chemistry	<ol style="list-style-type: none"> 1. Explain different processes involved in dairy products - boiling, pasteurization, sterilization and homogenisation 2. Describe various steps in sugar industry - double sulphitation process, refining, grading of sugar and explain the process required for manufacture of paper industry 3. Acquire knowledge on the importance of green chemistry and compare the greenness of various solvents 4. Study importance of cosmetic chemistry and their applications in soaps and detergents, tooth paste, Oils, Shampoos. 5. Gain knowledge in the use of chemistry in daily life and study about the various waste water treatments
CH18/6C/PHA	VI	Core 12-Pharmaceutical Chemistry	<ol style="list-style-type: none"> 1. Acquire knowledge on the various terms involved in pharmaceutical chemistry ,causes of common diseases , drugs and diagnostic tests 2. Gain wide knowledge on structure, synthesis and clinical uses of various antibiotics. 3. Classify anesthetics and demonstrate the need for anesthetics in human life. 4. Gain knowledge on various analgesics, its clinical use and adverse effect. 5. Study the main functions of blood, clotting, hypertension and hematological agents.
CH18/6E/CKE	VI	Elective 2 – Chemical Kinetics and Electrochemistry	<ol style="list-style-type: none"> 1. Acquire in depth knowledge in theories of chemical kinetics and concepts of activation energy. 2. Determine rate law of chemical change based on experiment data and be able to identify the reaction order of a chemical change. 3. Gain knowledge of electrolytic, metallic conductivity, migration, transport phenomena, the skill to carry out quantitative ionic estimation by experiments and graphs.

			<ol style="list-style-type: none"> Evaluate the potential of electrochemical system based on thermodynamic data, derive rigorous expression for Nernst equation for emf of cell. Discuss the irreversible processes like passivity corrosion, and calculate thermodynamics parameters of galvanic cells.
CH18/6E/MAC	VI	Elective 3- Materials Chemistry	<ol style="list-style-type: none"> Gain knowledge to classify polymer structure and explain the mechanism, kinetics of polymerisation reactions Learn the industrial preparation of polymers, skill to characterise polymers in terms of structure and molecular weight Correlate and classify ceramics and composites on the basis of their properties and applications Differentiate atomic scale materials from macro and micro scale in terms of structure and preparation Correlate the variation of properties of materials with size and distinguish allotropes of carbon on dimension
CH18/6E/AGC	VI	Elective-3 Agricultural Chemistry	<ol style="list-style-type: none"> Compare soil types & its properties, fertility management and formation Explain the chemistry of NPK fertilizer and their function in plants Classify manures and understand the concept of Green manuring Analyze the benefits & effects of pesticides, insecticides, herbicides & fungicides Acquire knowledge on the importance of genetically modified foods
CH18/6C/PR3	VI	*Core 13 – Practical 3-Organic Chemistry	<ol style="list-style-type: none"> Develop skill required for qualitative analysis of organic compounds and determination of boiling point. Analyze organic compounds systematically and prepare and exhibit suitable derivatives. Correlate the methodology with the theory behind the reactions, write and submit the report for the identified organic compound

CH18/6C/PR4	VI	*Core 14 – Practical 4 - Gravimetric Analysis	<ol style="list-style-type: none"> 1. Apply the principles of Gravimetric analysis and evaluate the weight of the precipitate using a single pan balance 2. Use silica crucible for Gravimetric estimation of Ba as barium sulphate 3. Use sintered crucible for Gravimetric estimation of Ni, Cu, Ca, Ba, Pb, Zn and Cl
CH18/6C/PR5	VI	*Core 15-Practical 5 - Physical Chemistry	<ol style="list-style-type: none"> 1. Explain the principles of conductivity , potentiometry, kinetics and phase rule experiments 2. Identify the strength of unknown solutions by potentiometric 3. Calculate the rate constant for first order, second order kinetics , and zero order kinetics by carrying out appropriate experiments



BSC PLANT BIOLOGY & PLANT BIOTECHNOLOGY

COURSE CODE	SEMESTER	COURSE TITLE	COURSE OUTCOMES
PB18/1C/AFL	I	Part - III - Core Main – Plant Diversity I – Algae, Fungi And Lichen	<ol style="list-style-type: none"> 1. Study reproduction life history patterns of algae and their current applications. 2. Identify and distinguish the different algal forms and thallus organization. 3. Explain the distribution pattern and of fungi and its uses. 4. Identify the different fungal forms. 5. Compare the different types of lichens and discuss its economic and ecological importance.
PB18/1A/AB1	I	Part -III – Allied Botany Paper – I	<ol style="list-style-type: none"> 1. Explain the characters, structure and life history of some common algae and their economic importance 2. Explain the characters, life history and significance of different fungi, bacteria and viruses 3. Apply the knowledge on structure and reproductive study of few forms of bryophytes, pteridophytes and gymnosperms and economic importance 4. Identify the ultra structure of cell, function of cell organelles and cell division 5. Utilise the concepts of Mendelism, plant tissue culture techniques and applications of biotechnology in different fields
PB18/2C/BMP	II	Part - III - Core Main- Basics In Microbiology and Plant Pathology	<ol style="list-style-type: none"> 1. Identify the different types of microorganisms and discuss the economic importance of bacteria. 2. Acquire skills on isolation and staining techniques 3. Explain the role of microbes in food and pharmaceuticals applications and to examine the quality of water and milk. 4. Discuss the toxins produced by different microorganisms and the interaction with the host plants 5. Outline the various plant diseases and their impact on agriculture and measures adopted to control plant diseases
PB18/2C/PR1	II	Core Practical I (covering core 1 & 3)	<ol style="list-style-type: none"> 1. Compare the vegetative and reproductive structures of different forms through sectioning. 2. Identify the different types of microorganisms and its importance. 3. Demonstrate the preparation of nutrient

			<p>media and techniques used for isolation of microorganisms.</p> <ol style="list-style-type: none"> Assess the quality of the basic commodities that include water, milk and food products. Identify the various plant diseases, their causal organism and control measures.
PB18/2A/AB2	II	Part -III - Allied Botany Paper – II	<ol style="list-style-type: none"> Identification of flowering plants based on their morphological characters Use the classification of plants and their economic importance Explain the primary and secondary anatomical structure of roots, stems and leaves of plants Apply knowledge on structure of anther, ovule and seeds Utilize knowledge on the metabolic activities of plants
PB18/A/ABP	II	Allied Botany Practical	<ol style="list-style-type: none"> Identify the plants using technical terms. Explain the Physiology of plants. Analyse the various floral parts. Identify the forms of Algae, Fungi, Bryophytes, Pteridophytes and Gymnosperms. Apply the knowledge in understanding the basics of Anatomy, Embryology, Cell Biology and Plant Biotechnology
PB18/3C/BPT	III	Part – III – Core Main –Bryophytes & Pteridophytes	<ol style="list-style-type: none"> Outline the characteristics of bryophytes their phylogeny, habit, distribution and economic importance. Compare the vegetative and reproductive structure of bryophytes. Discuss origin, reproduction and evolution of pteridophytes Discuss the life cycle patterns of Pteridophytes Compare the stele types and spore producing organs.
PB18/3A/APC	III	Part -III – Allied Phytochemistry Paper – I	<ol style="list-style-type: none"> Apply the basic principles of biochemistry and the importance of phytochemicals. Learn the structure, classification and properties of carbohydrates. Compile the structure, classification and properties of Lipids Know the sources, methods of extraction and classification of phytochemicals Gain knowledge on classification of natural products and its applications.
	III	Allied	<ol style="list-style-type: none"> Gain knowledge on the structure,

		Phytochemistry Practical	<p>classification and functions of aminoacids and proteins.</p> <ol style="list-style-type: none"> 2. Understand the type and role of vitamins. 3. Learn the sources, classifications, extractions and the importance of carotenoids and Flavonoids. 4. Study the types and sources of Tannins and Resins and learn the method of extractions. 5. Gain knowledge about see weeds and plant dyes used in industries.
PB18/4C/PR2	IV	Part - III - Core Practical II (covering core 5 & 7)	<ol style="list-style-type: none"> 1. Identify plants based on morphology, anatomy of the vegetative and reproductive organs of Bryophyte. 2. Compare and understand the morphology, anatomy of the vegetative and reproductive organs of Pteridophyte. 3. Categorize the plants based on the morphology, anatomy of the vegetative and reproductive organs of Gymnosperm. 4. Identify fossil plant forms belonging to pteridophytes and gymnosperms and analyse the evolutionary trend that occur in various groups of plants.
PB18/A/PYP	IV	Allied Phytochemistry Practical	<ol style="list-style-type: none"> 1. Evaluate quantitatively different chemical compounds through volumetric analysis 2. Identify qualitatively different mono and disaccharides, aminoacids and phytoconstituents like alkaloids, flavonoids, tannins and terpenoids. 3. Acquire knowledge on different vitamins, products of seaweeds and plant dyes.
PB18/5C/MTE	V	Part - III - Core - Plant Morphology, Taxonomy and Economic Botany	<ol style="list-style-type: none"> 1. Discuss the variation in the leaves, flowers and fruits of angiosperms. 2. Apply different system of classification in the systematic position of angiospermic plants and to prepare a herbarium and identify unknown plants to generic and specific levels. 3. Explain the vegetative and reproductive parts of few polypetalae and monocot families. 4. Explain the characters of few gamopetalae and monochlamydeae families. 5. Communicate the methods of cultivation and application of few common commercial crop plants.
PB18/5C/AAE	V	Part - III - Core -	<ol style="list-style-type: none"> 1. Identify the basic plant cell types, their

		Plant Anatomy and Embryology	<p>structure and functions</p> <ol style="list-style-type: none"> Analyse the fundamentals of tissue system and the differences in normal and anomalous growth patterns of stem. Identify and differentiate the internal structure of vegetative parts and ergastic substances Create an understanding on the structure of reproductive parts and their development Apply the knowledge gained on the development of embryo in horticulture industry
PB18/5C/CGP	V	Part - III - Core - Cell Biology, Genetics And Plant Breeding	<ol style="list-style-type: none"> Identify the types of cells based on their organization and to differentiate the types of cell division. Apply the knowledge gained to identify the cellular organelles of eukaryotic cells. Analyse the laws of inheritance, types of gene interactions and the role a gene plays in determining the characters of plants. Assess the concepts of types of inheritances, chromosomal variations and population genetics. Employ the principles and methods of plant breeding for plant improvement and seed production
PB18/5E/BIS	V	Bioinstrumentation and Biostatistics	<ol style="list-style-type: none"> Gain knowledge in understanding the principles, construction, operation and uses of different types of Microscopes and learn the Microscopic measurements Provides analytical insights to students on chromatographic techniques. Impart knowledge on the basic principles, construction and operation of different types of Electrophoresis and pH meter. Apply the concept of centrifugation and spectrometry used in analytical techniques. Demonstrate the ability to analyse the data using appropriate statistical tools and learn to interpret the results.
PB18/6C/PEP	VI	Part - III - Core Main – Plant Ecology And Phytogeography	<ol style="list-style-type: none"> Gain knowledge on the factors affecting vegetation, adaptations in plants and development of plant communities Identify the types of ecosystem and the nutrient cycles that exists in an environment Acquire knowledge on biodiversity and the methods of conservation of natural resources.

			<ol style="list-style-type: none"> Analyse the impact of pollution on natural resources and the remedial measures to solve the issues. Apply the principles of phytogeography and identify the vegetational types of India and Tamilnadu.
PB18/6C/MPB	VI	Part - III - Core Main - Molecular Biology and Plant Biotechnology	<ol style="list-style-type: none"> Discuss the nature of Genetic material Learn the process of Transcription and Translation involved in protein synthesis and gene regulation in prokaryotes. Understand the role of vectors in rDNA technology and methods of gene transfer in transgenic plants. Elucidate the importance of plant biotechnology in the field of agriculture, Environment, Medicine and Forestry Impart knowledge in techniques in plant tissue culture and its applications in Horticulture and Forestry
PB18/6C/PPB	VI	Part - III - Core Main -Plant Physiology And Plant Biochemistry	<ol style="list-style-type: none"> Apply on the significance of water relations in the functioning of a plant cell. Understand the mechanism of photosynthesis and analyse the factors affecting it. Identify the mechanism involved in respiration and nitrogen metabolism in plants Analyse and identify stresses that affect plant growth and development and apply the knowledge for plant improvement. Study the structure, properties, classification and significance of biomolecules functioning in plants
PB18/6C/PR3	VI	Practical covering – Core 9,11 and 12 - Practical III	<ol style="list-style-type: none"> Compare the anatomy of roots, stem and leaves in dicots and monocots. Identify the various cell components, structure and their functions. Demonstrate mitotic and meiotic stages in plant cell. Predict the solution for genetics problem and chromosome mapping. Analyse vegetative and floral characteristics for identification of angiospermic plants using floral mounts. Identify and describe various economically important plant products.
PB18/6C/PR4	VI	Practical covering – Core 14,15 and 16 - Practical IV	<ol style="list-style-type: none"> Develop skills to analyse the structure of plants of different habitats by microscopical observations of the plant sections.

			<ol style="list-style-type: none"> Identify and know the dominant plant communities in a locality by quadrat analysis and mapping of phytogeographical regions. Assess the physiology of plants by handling experiments individually. Identify the structure of biomolecules and practically handle basic plant tissue culture techniques.
PB18/6E/HMC	VI	Horticulture and Mushroom cultivation	<ol style="list-style-type: none"> Discuss the classification of crops, container, potting media, fertilizers and irrigation methods of horticultural crops. Identify ornamental plants and to explain the nursery structure and flower arrangement. Plan for garden components, types of cutting, layering, grafting and methods of crop protection. Apply the techniques of fruit preservation – jams, jelly, squash, syrup and marmalades. Explain the techniques of cultivation of paddy straw and oyster mushroom and its marketing.
PB18/6E/HBS	VI	Herbal Science	<ol style="list-style-type: none"> Compare the principles of various traditional systems of medicine and crude drugs from medicinal plants. Discuss the classification and principles of various traditional systems of medicine and crude drugs from medicinal plants. Apply herbal remedies to combat common ailment like cold, cough, fever, headache, achiene, etc using natural remedies and raw juice. Asses the significance of antioxidants, food and herbs to prevent and control diabetes, cancer and cardiac arrest. Prepare and utilize herbal products like Chooranam, Leghiyem, Thilam and to analyze the deleterious effect of adulterants, fumigastories and masticatories. Discuss the phytochemical constituents and medical uses of few commonly available herbal plants.
	I	Part IV Nursery And Landscaping	<ol style="list-style-type: none"> Explain the prospects and scope of nursery and landscaping Use various propagation methods in the cultivation of ornamental and crop plants Design different types of gardens using the basic principles of landscaping

			<ol style="list-style-type: none"> 4. Explain and communicate the various garden components 5. Prepare and use manures and vermicompost
	II	Part IV- Mushroom Cultivation	<ol style="list-style-type: none"> 1. Identify and compare edible mushroom with poisonous mushroom and utilize its nutritional value 2. Explain the prospects and scope of mushroom cultivation in small scale industries 3. Explain the life cycle of <i>Pleurotus</i> sp. And <i>Agaricus</i> sp 4. Demonstrate the cultivation, harvesting and marketing of mushroom 5. Explain the pest control measures and post harvesting techniques



BSC PHYSICS

COURSE CODE	SEM	COURSE TITLE	COURSE OUTCOMES
PH18/1C/PMS	I	Properties of Matter & Sound	<ol style="list-style-type: none"> 1. Define the fundamentals of elasticity and torsion effects. 2. Demonstrate the practical concepts of bending of beams through experimental setup and solve associated problems. 3. Categorize the nature of liquid flow and apply the laws of fluid dynamics in terms of viscosity and surface tension using mathematical tools. 4. Analyze the universal behavior of wave motion and Doppler Effect. 5. Explore the production and application of ultrasonic waves and develop the knowledge of architectural acoustics
PH18/2C/MPR1	I	Major Practical I	<ol style="list-style-type: none"> 1. Demonstrate the use of potentiometer for the calibration of electrical meters. 2. Apply the concepts of moduli of elasticity in a series of experiments. 3. Illustrate the underlying concepts of fluid dynamics and mechanics of rigid bodies and compare the results to the standard values. 4. Demonstrate the principles of specific heat capacity and laws of vibration through various experimental procedures. 5. Apply the phenomenon of interference and the concept of refractive index with the use of suitable optical set up.
PH18/2C/HTD	II	Heat & Thermodynamics	<ol style="list-style-type: none"> 1. Demonstrate thermal conductivity and concepts of specific heat capacity through practical experiments. 2. Identify the laws of thermodynamics and analyze its application to heat engines. 3. State and apply the concepts of entropy and the use of temperature scales. 4. Apply Maxwell's thermodynamic equations to comprehend phase transitions. 5. Illustrate the Statistical laws of thermodynamics and relate it to the study of Condensed Matter Physics.
PH18/3C/ETM	III	Electricity and Magnetism	<ol style="list-style-type: none"> 1. Apply the knowledge of Gauss law with various dimensions of the object between electrical charge physical principles to solve problems encountered in everyday life. 2. Acquire knowledge on the fundamentals of capacitors; evaluate the characteristics effect of a dielectric material in a capacitor. Develop, design and experiment with various

			<p>dielectric circuits.</p> <ol style="list-style-type: none"> Using the basic laws that underlie in the properties of electric circuit elements and various network theorems to solve problems Experiment various methods to evaluate electric potential, analyze, apply thermoelectric energy harvesting techniques. Identify and apply Ampere's law and to relate to the force in magnetic field measurements.
PH18/3S/MPH	III	Medical Physics	<ol style="list-style-type: none"> Explain the basic structure of the cell, and assess the various bio electric signals and devices used in medicine. Analyse the functions, principles and instrumentation of various biomedical equipments used in the study of the functions of the heart, brain, eye and skeletal muscles Discuss the determination of various clinical non electrical measurements and its relevant procedures. Evaluate the basic principle and application of various medical imaging systems and its safety measures. Discuss the fundamentals of laser and its application for diagnosis and therapy in medicine.
PH18/4C/OPT	IV	Optics	<ol style="list-style-type: none"> Illustrate the concept of dispersion, aberration in prism and light propagation in optical fibers. Explore the theoretical and practical ideas of interference. Analyze and apply the knowledge of diffraction in the laboratory experiments. Comprehend the resolution of optical instruments and analyze the resolving power of prism and grating. Illustrate the concept of polarization and nicol prism and to study the laws of optical activity and specific rotation.
PH18/4C/MPR2	IV	Major Practical II	<ol style="list-style-type: none"> Impart the basic idea about the Youngs modulus, rigidity modulus and frequency of A.C. mains, transverse and longitudinal vibrations in stretched strings. Analyze the laws of resistance using Potentiometer, P.O. box and Carey Foster's bridge and calibration of low range voltmeter using potentiometer. Determine the refractive index of material of lens, prism and to infer the wavelength of mercury vapour lamp. Apply the ballastic galvanometer to

			<p>determine figure of merit and charge sensitivity to observe field along axis of a coil</p> <p>5. Strengthen the idea of electrical heating using Joules calorimeter</p>
CH18/4A/PGC2	IV	Allied Chemistry- General Chemistry 2	<p>1. Realize the concept of interference in optics and to apply in designing optical elements useful in day to day lives.</p> <p>2. Explain the basics of atomic physics and study of atomic interactions with electric and magnetic fields.</p> <p>3. Analyze the importance of nuclear science in the current era via studying its theory and limitations.</p> <p>4. Study the revolutionized concept called relativity with the better understanding of general and special theory of relativity.</p> <p>5. Exploration of semiconductor physics and applies the knowledge of digital electronics and logic gates in designing of various applications.</p>
PH18/5C/NUP	V	Nuclear Physics	<p>1. After taking this course, students are able to demonstrate a knowledge of fundamental aspects of the structure of the nucleus, perform basic calculations using the models to derive the observed stable nuclei.</p> <p>2. Explain the operation of the technical components and diagnose accelerating methods, explain limitations of different types of accelerators</p> <p>3. This course has led the students to assess interaction of various types of radiation with matter evaluate their occurrence in their daily life. Acquiring skills in analyzing, interpreting radiation spectra and communicating the result of such investigation in writing.</p> <p>4. Students would be able to apply various aspects of nuclear reactions in view of compound nuclear dynamics. Account for fission and fusion processes of the reactors.</p> <p>5. Classify elementary particles and nuclear states in terms of their quantum numbers, develop and communicate analytical skills in subatomic physics</p>
PH18/5C/MMP	V	Mechanics and Mathematical Physics	<p>1. Compute problems relating to the laws of mechanical forces and determining physical quantities like moment of inertia of rigid bodies.</p> <p>2. Demonstrate the laws of gravity through experimental setup and explore the concepts</p>

			<p>of satellite motion.</p> <ol style="list-style-type: none"> 3. Explore the nature of colliding bodies and the change in the associated kinetic energies. 4. Apply Vector Calculus in the fields of fluid and electrodynamics. 5. Apply matrix rules in quantum and classical physics domains.
PH18/5C/ALP	V	Atomic and Laser Physics	<ol style="list-style-type: none"> 1. Analyze the structure of atoms and the origin of the observed spectra. 2. Utilize the applications of vector atom model and the optical spectral terms. 3. Evaluate the atomic behaviour in external applied electric and magnetic fields. 4. Formulate the concepts of X-rays production and the experiments to find X-ray spectra. 5. Analyze the laser principles, Laser behaviour, different types of lasers and its applications.
PH18/5E/EED	V	Basic Electronics and Electronic Devices	<ol style="list-style-type: none"> 1. Assess the basic idea about semiconductors and their energy band diagrams 2. Analyze the concept of semiconductor devices, their working and applications 3. Formulate the construction and applications of FET, JFET, SCR and UJT 4. Utilize the mathematical calculations to study the electrical circuits and to comprehend the concept of feedback circuits 5. Design various operational amplifier circuits and analyze the working of wave generating oscillators
PH18/5S/NSN	V	Nanoscience And Nanotechnology	<ol style="list-style-type: none"> 1. Apply engineering and physics concepts to the nano-scale and non-continuum domain. 2. Identify and compare state-of-the-art nanofabrication methods 3. Formulate appropriate tools for measurements of relevant physical properties 4. Discuss and evaluate state-of-the-art characterization methods for nanomaterials 5. Acquire the knowledge in applications of nanotechnology in various fields
PH18/6C/EMG	VI	Electromagnetism	<ol style="list-style-type: none"> 1. Analyze the magnetic effect of electric current and demonstrate the associated concepts with ballistic galvanometer. 2. Demonstrate the practical concepts of magnetic induction through experimental setup. 3. Analyze the growth and decay of transient currents through mathematical techniques. 4. Illustrate the practical purposes of alternating current and the related laws.

			5. Apply vector calculus to study the behavior of electric and magnetic fields in various media.
PH18/6E/DEM	VI	Digital Electronics and Microprocessor	<ol style="list-style-type: none"> 1. Explain the structure of various number systems and its applications in digital design. 2. Demonstrate the various digital electronic circuits like flip flops, shift registers and counters. 3. Formulate interfacing of 8085 using programmable peripheral interface and its applications. 4. Evaluate the basic architecture, pin configuration and interrupts of 8085 microprocessor system. 5. Analyze the design and coding knowledge on 8085 microprocessor family.
Or			
PH18/6E/AEL	VI	Advanced Electronics	<ol style="list-style-type: none"> 1. Explain the internal structure and pin configuration of 555 timer and use it to generate wave forms. 2. Demonstrate the various coupling schemes used in amplifiers and draw its frequency response curve. 3. Analyse the circuit operation and applications of different multivibrators using transistor. 4. Evaluate the mathematical operation and the applications of linear and non-linear wave shaping circuits. 5. Discuss the modulation and demodulation processes. Application of amplitude and frequency modulation in TV transmission
PH18/6C/QMR	VI	Quantum Mechanics and Relativity	<ol style="list-style-type: none"> 1. Explain the classical concepts of Newtonian laws to mechanical systems through the use of intense mathematical and problem solving skills. 2. Explain the historical aspects of development of quantum mechanics and the differences between classical and quantum mechanics. 3. Formulate the idea of wave function and interpret the fundamental concepts of uncertainty relations. 4. Evaluate the physical interpretation of wave function, analyse time dependent and independent Schrodinger wave equation devise it for simple potential well 5. Demonstrate an understanding of the basic principles of Special and General theory of relativity and explain the true nature of Newtonian mechanics and Lorentz Transformation equations.

PH18/6E/MAS	VI	Material Science	<ol style="list-style-type: none"> 1. Explain the concept of bonding of atoms and forces acting between them. 2. Apply the techniques of crystal growth in research. 3. Analyze the knowledge of production and properties of ceramics and polymers to synthesis of novel materials. 4. Evaluate the fundamentals of dielectric polarization mechanisms and apply it in problem solving. 5. Compute the various techniques for growing nanomaterials and apply to interdisciplinary research.
Or			
PH18/6E/ASP	VI	Astrophysics	<ol style="list-style-type: none"> 1. Assess the design of physical nature of celestial bodies through co-ordinates of space and time 2. Apply various optical instruments and explore the observable universe 3. To relate to the stellar observations, the properties, their environment and even the presence of planets with appropriate theories. 4. Evaluate the structure of milky way galaxy and all its contents with cosmology for the study of the character and evolution of the universe. 5. Explain the age and origin of the solar system and illustrate the differences between Earth and other planets in the Solar System.
PH18/6C/MPR3	VI	Major General Practical III	<ol style="list-style-type: none"> 1. Formulate the type of force, type of supports and the reactions on beams and plane frames. 2. Utilize the fundamental concepts of thermodynamics, develop analytical skills, team work and technical communication . 3. Analyze earth's magnetic field and magnetisation using vibration magnetometer 4. Demonstrate knowledge of the fundamental concepts of electricity and electromagnetism acquire hands on experience about measuring device 5. Assess the principles of reflection, refraction, diffraction, interference and superposition of waves. Substantiate the results to various physical phenomena leading to update in field of geometrical optics.
PH18/6E/EPR	VI	Electronics Practical	<ol style="list-style-type: none"> 1. Assess the knowledge circuit connection, Understanding the current voltage characteristics of semiconductor devices.

			<ol style="list-style-type: none"> Analyze DC circuits and relate AC models of semiconductor devices with their physical Operation, Design and analyze of electronic circuits, evaluate frequency response to understand behavior of analog electronics circuits Assess and solve basic binary math operations using the operational amplifier. Develop design competence in linear and nonlinear opamp circuit analysis. Apply the knowledge acquired and demonstrate programming proficiency using the various addressing modes and data transfer instructions of the target microprocessor
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BSC MATHEMATICS

COURSE CODE	SEM	COURSE TITLE	COURSE OUTCOMES
MA18/1C/ TLT	I	Trigonometry and Laplace Transforms	<ol style="list-style-type: none"> Expand sines and cosines of θ in terms of functions of multiples of θ. Determine the hyperbolic functions and inverse hyperbolic function and study the relation between them. Determine the logarithms of complex numbers. Compute the Laplace Transforms and Inverse Laplace Transforms of various basic mathematical functions. Investigate the Laplace Transform techniques to solve second order differential equations.
MA18/1C/DCL	I	Differential Calculus	<ol style="list-style-type: none"> Compute n^{th} derivatives of algebraic & trigonometric functions. Evaluate n^{th} derivative of product of two functions using Leibnitz formula Find maxima and minima of functions of two independent variables. Use Lagrange's multiplier method to solve constrained optimization problem. Apply PDE to find Jacobian of a given multiple variable. Demonstrate and compute envelopes, radius and centre of curvature. Discuss Co-ordinates of centre of curvature, p-r equation and pedal equation of a curve. Explain and evaluate the asymptotes.
MA18/1A/FD1	I	Calculus of Finite Differences – I	<ol style="list-style-type: none"> Compare accuracy, precision and errors. Applying the Methods of interpolation to compute the missing value in real life problems. Utilize various numerical operators to find the generalized term.

			<ol style="list-style-type: none"> 4. Compute the missing values for unequal intervals using divided difference and Lagrange's Method. 5. Evaluate the approximate values of the first derivative, maximum and minimum values of the Function using Newton's formula. 6. Compute definite integral for different combinations of integrands using various methods and analyze their accuracy.
MA18/2C/CLA	II	Classical Algebra	<ol style="list-style-type: none"> 1. Sum the series using Binomial, Exponential and Logarithmic expansions. 2. Analyse the relation between root and coefficients of a polynomial equation. 3. Form the equations using symmetric roots of a given equation 4. Find an approximation of roots of cubic equation by Horner's method. 5. Compute the inverse of a matrix using Cayley Hamilton Theorem, eigen values and eigen vectors of a matrix. 6. Analyse and interpret the concept of numbers, divisibility, Congruence, Euler function, Fermat's and Wilson's theorem.
MA18/2C/ICF	II	Integral Calculus and Fourier Series	<ol style="list-style-type: none"> 1. Derive reduction formula and thereby evaluate some standard integrals. 2. Apply change of variable method to evaluate double integral 3. Utilize double and triple integral to compute area and volume of the solid 4. Explain the properties of Beta and Gamma function and apply it to compute the integral 5. Identify odd and even function. Use that to determine Fourier series expansion of the given function
MA18/2A/FD2	II	Calculus of Finite Differences – II	<ol style="list-style-type: none"> 1. Compute the summation of series by applying Numerical Operators and Euler Maclaurin Formula. 2. Apply Numerical Methods to evaluate numerical solution of algebraic and transcendental equations. 3. Solve Simultaneous linear equation in three variables. 4. Formulate difference equation for the given problem and solve the equation. 5. Evaluate the solution of first order differential equation using Euler, Picard's and Runge-Kutta Methods.
MA18/3C/DEQ	III	Differential Equations	<ol style="list-style-type: none"> 1. Analyze and solve the first order differential equation.

			<ol style="list-style-type: none"> 2. Compute Complementary function and Particular integral for the Linear equation with constant coefficients. 3. Compute Complementary function and Particular integral for the Linear equation with variable coefficients. Discuss the method of variation of Parameters. 4. Evaluate the solution of exact equations, Total Differential Equations, Lagrange's Equation. 5. Formulate the P.D.E. and find Complete, particular and singular integrals.
MA18/3C/NTY	III	Number Theory	<ol style="list-style-type: none"> 1. Validate simple mathematical proof by principle of mathematical induction. 2. Analyse the concept of divisibility, congruence, GCD & LCM. Evaluate GCD by Euclid Algorithm. 3. Solve Diophantine equations of two or three variables. 4. Acquire knowledge of Cryptography and data encryption. 5. Apply the law of quadratic reciprocity and their methods to classify numbers as primitive roots, quadratic residues and non-residues. 6. Discuss about perfect numbers, even perfect numbers, Mersenne Numbers, Fermat Numbers.
MA18/3A/MS1	III	Mathematical Statistics & R Software – I	<ol style="list-style-type: none"> 1. Differentiate between discrete and continuous random variables and compute the Mathematical expectation of a random variable. 2. Compute Mean, Median and Mode of Binomial and Poisson distribution and their moments. 3. Analyse rectangular and normal distribution and compute the various parameter of the distribution. Apply Normal distribution properties to solve real life problems. 4. Compute Correlation and Rank Correlation and find the relation between two variables using Regression. 5. Effectively use 'R' software for representation of data, Computation of Correlation and Regression lines.
MA18/4C/ALS	IV	Algebraic Structures	<ol style="list-style-type: none"> 1. Analyze the properties implied by the definition of groups and rings. 2. Assess the properties of various canonical types of groups and rings like cyclic groups, normal groups, quotient rings, polynomial rings. 3. Analyze and demonstrate examples of subgroups, normal subgroups, quotient group, ideals and quotient rings 4. Use the concepts of isomorphism and homomorphism for groups and rings

			5. Produce rigorous proofs of propositions arising in the context of abstract algebra.
MA18/4C/VGF	IV	Vector Calculus , Geometry and Fourier Transforms	<ol style="list-style-type: none"> 1. Discuss the Basic concepts of gradient, Scalar Potential, Directional Derivative, Divergence and Curl. 2. Evaluate line integral, surface integral and volume integral. 3. Apply Green's theorem, Gauss-Divergence theorem, Stokes theorem to evaluate Area and Volume. 4. Discuss the Geometrical concepts of Planes. 5. Apply the concept of Polar coordinates to find the Distance between the two Points, Area of a triangle and Solve problems on Straight lines. Determine Fourier Transform for a given function.
MA18/4A/ MS2	IV	Mathematical Statistics & R Software – II	<ol style="list-style-type: none"> 1. Determine the basic concepts of sampling, Test statistics and Critical region. 2. Understand, apply and compute sample tests of hypothetic problems. 3. Apply and examine the Chi-square goodness of fit, test for independence and homogeneity. 4. Analyse the principles of Designs of experiments to yield valid conclusions. 5. Effectively use 'R' software to find averages and derive at statistical inferences from various distributions.
MA18/5C/LAL	V	Linear Algebra	<ol style="list-style-type: none"> 1. Assess the properties implied by the definition of vector space. 2. Analyze the concepts of linear span, basis, and dimension of a vector space and apply it to solve problems. 3. Represent a linear transformation in the form of a matrix. 4. Rigorously prove the various propositions arising in the context of linear transformations. 5. Apply the various concepts of linear transformations to compute the matrix representation of a linear transformation, eigen values and eigen vectors of a matrix.
MA18/5C/RAN	V	Real Analysis	<ol style="list-style-type: none"> 1. Determine the basic topological properties of the subsets of the real numbers. 2. Apply the concept of limit to sequences, series and functions. 3. Analyse the topological properties of connectedness, completeness and compactness of a metric space. 4. Produce rigorous proofs of results that arise in the contexts of real analysis.

			<ol style="list-style-type: none"> Determine the continuity, differentiability and integrability of functions defined on subsets of real numbers.
MA18/5C/STT	V	Statics	<ol style="list-style-type: none"> Discuss the fundamental concepts of forces and friction and to find the resultant of two or more forces acting on a particle. Apply the concepts of Lami's Theorem to determine the equilibrium of a particle under three or more forces. Discuss the Limiting Equilibrium of a particle on an Inclined Plane. Explain the concepts of Forces on a Rigid Body. Investigate the Resultant of like and unlike parallel forces and Varignon's theorem to find the Moment of a force. Discuss the Basic concepts of Couples, Moment of a Couple, Moment of a Couple as an area and to find equation of the line of action of the resultant. Evaluate the Centre of Mass for the Plane area, Circle, Cone, Hemisphere.
MA18/5C/OPT	V	Optimization Techniques	<ol style="list-style-type: none"> Formulate and model the linear programming problem and solve them graphically in two dimensions. Convert the given linear programming problem into standard form and use the Simplex method or Big – M method to solve it. Find the dual, identify and interpret the solution of the Dual problem from the final tableau of the Simplex problem. Formulate the given Transportation problem into a mathematical model and find the optimum solution using North – West Corner rule or least cost method or Vogel's approximation method appropriately. Interpret the Assignment problem as a classical programming model such as Travelling Sale Problem using Hungarian method Classify the Queuing problem under the models: (M/M/1) : (∞/FCFS), (M/M/1) : (N/FCFS), (M/M/S) : (∞/FCFS)
MA18/5E/PLC	V	Programming Language 'C'	<ol style="list-style-type: none"> Demonstrate the fundamental structures of C programming. Discuss conditional and iterative statements to develop C programs. Critique the arrays of complex objects. Analyze the loops and decision making statements, user defined function to solve the problems. Utilize the concepts of Data types and

			<p>operators.</p> <p>6. Formulate C program in Mathematical problems.</p>
MA18/5E/PR1	V	Programming Language 'C'	<ol style="list-style-type: none"> 1. Identify algorithm to solve Mathematical problems. 2. Demonstrate coding Techniques. 3. Assess and Debug errors at the time of execution. 4. Develop C programs using operators. 5. Develop C programs using loops, conditional statements, and user defined functions.
MA18/6C/CAN	VI	Complex Analysis	<ol style="list-style-type: none"> 1. Represent complex numbers algebraically and geometrically, define and analyse the concept of analyticity and apply it to derive Cauchy-Riemann equations. 2. Define conformal mapping and find the mapping that maps three distinct points on the z-plane to three distinct points on the w-plane by applying bilinear transformation. 3. Evaluate complex integrals directly by using Cauchy-Goursat theorem and study the various applications of Cauchy's Integral formula. 4. Represent functions as Taylor and Laurent series, classify singularities and poles, find residues and evaluate complex integrals using Residue theorem. 5. Evaluate complex contour integrals by applying Cauchy –integral formula and its various versions.
MA18/6C/DYN	VI	Dynamics	<ol style="list-style-type: none"> 1. Acquire knowledge about the basic concepts of Kinematics and determine Speed and Shortest distance between the particles. 2. Apply the fundamental concepts of Work, Energy and Power to Calculate Work done, frictional resistance and Kinetic energy. Discuss Simple Harmonic Motion to find period and Amplitude. 3. Analyze the motion of Projectiles and their results. Discuss the Direct Impact and Oblique impact of two Spheres. 4. Critique the Concepts of Central Orbits, Differential equation of a central Orbit and Kepler's law of planetary motion. 5. Determine Moment of Inertia for various geometrical shapes by using Parallel and Perpendicular axis theorem.
MA18/6C/DIM	VI	Discrete Mathematics	<ol style="list-style-type: none"> 1. Construct truth table for the given proposition. Interpret tautology and contradictions. Demonstrate logical operator. 2. Define and illustrate poset, lattices. Discuss the

			<p>properties and types of lattices. Demonstrate Hasse diagram.</p> <ol style="list-style-type: none"> 3. Analyze Boolean functions. Recognize the use of Karnaugh map method to construct the canonical form of Boolean expression. 4. Illustrate different types of graphs. Demonstrate walk, trails, and connectedness. 5. Define and describe Eulerian and Hamiltonian graph.
MA18/6E/OPR	VI	Operations Research	<ol style="list-style-type: none"> 1. Evaluate the given Sequencing problem and classify under the various types and solve them using Graphs. 2. Analyze the given Game problem and solve it using the appropriate models, two person zero sum games, games without saddle points, pure strategies and mixed strategies. Interpret $2 \times n$ and $n \times 2$ games graphically. 3. Analyze the need of Inventory, its advantages and disadvantages and classify them under different Inventory models. Solve the real-time problems using it. 4. Represent the Network problem through Network diagram and label using Fulkerson's 'I-J' rule and determine the critical path. 5. Using PERT model, find the optimistic time, most likely time, pessimistic time, expected time and variance.
MA18/6E/PCO	VI	Programming Language 'C' & Introduction to OOP	<ol style="list-style-type: none"> 1. Demonstrate Object oriented features and C++ concepts. 2. Discuss the file operators in C programming 3. Explain structures and Arrays within structures 4. Create C Program using pointers 5. Prepare Linked lists, Insertion and deletion of lists.
MA18/6E/PR2	VI	Programming Language 'C' & Introduction to OOP	<ol style="list-style-type: none"> 1. Identify algorithm to solve Mathematical problems. 2. Demonstrate coding Techniques. 3. Assess and Debug errors at the time of execution. 4. Develop C programs using Pointers and Structures. 5. Evaluate Numerical Problems using C language.

BSC NUTRITION, FOOD SERVICE MANAGEMENT & DIETETICS

COURSE CODE	SEM	COURSE TITLE	COURSE OUTCOMES
ND18/1C/FSE	I	Food Science	<ol style="list-style-type: none"> 1. Identify, Define and classify different food groups, nutrients, and different pre preparation and cooking methods adopting best practices of health and safety. 2. Describe the composition and nutritive value of different food groups and their role in cookery from current literature. 3. Define and explain the physical and chemical changes occurring in the nutritive and non-nutritive constituents of different foods during various cooking processes. 4. Apply the current understanding of food science to describe the various sustainable food practices like energy and nutrient conservation methods 5. Analyze and understand the principles in cooking and its effect on sensory attributes and nutrients.
ND18/2C/PR1*	I	Food Science & Physiology practical	<ol style="list-style-type: none"> 1. Identify the major levels of organization, major components of each organ and define the relationship between anatomy and physiology 2. Explain the concept of homeostasis, negative and positive feedback mechanisms and usage of anatomical terms to describe the body 3. Illustrate the functions of important physiological systems including digestive, cardio respiratory, renal, reproductive, endocrine and nervous. 4. Distinguish the interaction between separate systems to yield the integrated physiological responses in the body 5. Develop competency to analyze relationship between health, disease and physiology
ND18/2C/PHY	II	Physiology	<ol style="list-style-type: none"> 1. Identify the major levels of organization, major components of each organ and define the relationship between anatomy and physiology 2. Explain the concept of homeostasis, negative and positive feedback mechanisms and usage of anatomical terms to describe the body 3. Illustrate the functions of important

			<p>physiological systems including digestive, cardio respiratory, renal, reproductive, endocrine and nervous.</p> <ol style="list-style-type: none"> 4. Distinguish the interaction between separate systems to yield the integrated physiological responses in the body 5. Develop competency to analyze relationship between health, disease and physiology
ND18/2C/PR1*	II	Food Science & Physiology practical	<ol style="list-style-type: none"> 1. Identify the different food ingredients and incorporate traditional and sustainable cooking techniques 2. Describe and conduct appropriate sensory analysis of recipes 3. Demonstrate skills while using cooking utensils and equipment during food preparation 4. Recognize and identify the principle tissue structures 5. Perform, analyze and interpret the experiments of blood parameters
ND18/3C/HNU	III	Human Nutrition	<ol style="list-style-type: none"> 1. List/ define key terms related to macro nutrients, micronutrients, water, electrolyte as in sources, losses during processing, deficiency and RDA 2. Classify micronutrients and examine/ discuss their functions, metabolism and deficiencies. 3. Define and explain the relationship between nutrients and nutrient metabolism 4. Identify and analyze the distribution, functions, metabolism, deficiency of micronutrients 5. Explain and analyze the role of water and electrolytes in human health
ND18/4C/PR2*	III	Human Nutrition & Nutrition Through Lifecycle practical	<ol style="list-style-type: none"> 1. Estimate the amount of specific biological macro and micro nutrients 2. Assess the energy requirements and evaluate the quality of protein rich recipes by chemical scoring method 3. Planning and Preparing diets for individuals across the life span 4. Developing indigenous, value added and low cost complementary feeds <p>Planning and Preparing suitable and sustainable diets for deficiency diseases</p>
ND18/3A/MIC	III	Microbiology	<ol style="list-style-type: none"> 1. Outline the fundamental knowledge on the microorganisms and classify them 2. Explain the sources of contamination and spoilage of foods

			<ol style="list-style-type: none"> Classify the different types of immunity and describe the vaccines Categorize the microorganisms in soil, water, air and sewage and assess the quality of water Explain the causes and prevention of food poisoning and food borne infections. Distinguish between sterilization and disinfection and outline the appropriate methods to be used in different settings.
ND18/4A/PR1*	IV	Microbiology & Nutritional Biochemistry Practical	<ol style="list-style-type: none"> Learn techniques to identify and differentiate micro organisms Demonstrate and identify the best practices relating to sterilization and disinfection appropriate to various settings to promote healthy, safe and eco friendly environment Recall relevant principles and practical procedure for various analytical techniques Demonstrate analytical techniques Identify macro and micro nutrients based on qualitative analysis
ND18/4C/NLC	IV	Nutrition Through Lifecycle	<ol style="list-style-type: none"> Explain the physiological basis for nutritional needs through the human lifecycle Identify nutrition related concerns and deficiency disorders at every stage of lifecycle Discuss appropriate dietary guidelines for various age groups Construct and interpret diets to meet the nutritional needs across the lifecycle Relate healthy eating behaviours to general well being
ND18/4C/PR2*	IV	Human Nutrition & Nutrition Through Lifecycle practical	<ol style="list-style-type: none"> Estimate the amount of specific biological macro and micro nutrients Assess the energy requirements and evaluate the quality of protein rich recipes by chemical scoring method Planning and Preparing diets for individuals across the life span Developing indigenous, value added and low cost complementary feeds Planning and Preparing suitable and sustainable diets for deficiency diseases
ND18/4A/NBC	IV	Nutritional Biochemistry	<ol style="list-style-type: none"> Define various inborn errors of metabolism Outline the structure and classification of major biological macromolecules, specific micro molecules and enzymes Illustrate the major metabolic pathways and

			<p>its interrelationship</p> <ol style="list-style-type: none"> Outline the process of biological oxidation and metabolic release of energy Apply and relate the knowledge of biochemistry to nutrition, health and diseases
ND18/4A/PR1*	IV	Microbiology & Nutritional Biochemistry Practical	<ol style="list-style-type: none"> Learn techniques to identify and differentiate micro organisms Demonstrate and identify the best practices relating to sterilization and disinfection appropriate to various settings to promote healthy, safe and eco friendly environment Recall relevant principles and practical procedure for various analytical techniques Demonstrate analytical techniques <p>Identify macro and micro nutrients based on qualitative analysis</p>
ND18/5C/FM1	V	Food Service Management I	<ol style="list-style-type: none"> Identify and differentiate types of food service sectors. Discuss and apply the principles of menu planning and standardisation of recipes. Apply the principles and tools of management for effective administration of organisation Differentiate and apply the knowledge and skills in planning and designing layout for food service outlets. Apply the skills for food purchase, storage, preparation, service and maintenance of records
ND18/5C/HFS	V	Human Development and Family Studies	<ol style="list-style-type: none"> Identify the major developmental milestones of individual across the lifespan in the areas of physical, social, emotional, cognitive and language development Interpret inputs and insights regarding family – adjustments, critical situations Explain the psychosocial, economic and health issues of the aged in the current scenario. Examine the prenatal and postnatal care of mother and child. Develop the skills in handling real life situations in order to face challenges and opportunities in life
ND18/5C/BAK	V	Baking and Confectionery	<ol style="list-style-type: none"> Define and explain the concept of baking theory and practice communicating using relevant professional literature in relation to cultural and socially acceptable norms with

			<p>aspects of quality and aesthetics.</p> <ol style="list-style-type: none"> 2. Illustrate and classify professional equipments used in baking following current trends adopting safety and quality aspects. 3. Identify and explain various types of breads, cakes, pastries, cookies and confectionery with ingredients used in professional practices within socially and culturally acceptable norms fostering best practices in health and quality. 4. Experiment with ingredients for special dietary needs to support sustainable living, applying health, safety and aesthetic aspects. 5. Apply the concept of baking to prepare selected recipes with decorations in keeping with cultural norms fostering entrepreneurial skills.
ND18/5C/TD1	V	Therapeutic Dietetics I	 <ol style="list-style-type: none"> 1. Critical thinking and problem solving while designing diets 2. Appraise the role of dietitian in community, hospital 3. Make use of Nutrition care process to assess and provide treatment plan and evaluate professional literature to make ethical evidence based practical decisions 4. Demonstrate knowledge on the patho physiology, symptoms, principles of diet therapy and diet adjuncts for specific disease conditions 5. Demonstrate counselling technique to facilitate behaviour change
ND18/5E/IDH	V	Interior Decoration & Housekeeping	<ol style="list-style-type: none"> 1. Outline the universality of principles and elements of design 2. Explain the basic concepts in the selection and types of furniture, furnishings, floor coverings and accessories 3. Apply the colour and lighting principles in designing interiors 4. Analyse the scope of various styles of flower arrangement 5. Discuss the importance of the housekeeping operations 6. Manage the public and private areas in various establishments
ND18/6C/FM2	VI	Food Service Management II	<ol style="list-style-type: none"> 1. State the various styles of food and beverage services offered in food service sectors

			<ol style="list-style-type: none"> Discuss the basic technical skills, interpersonal skills and the significance of hygiene and safety in the food premises Apply the management concepts to personnel recruitment, selection, training, appraisal, book keeping and pricing methods Classify equipments and acquire knowledge on equipment selection Apply knowledge and skills to become an entrepreneur in running a food service operations
ND18/6C/TD2	VI	Therapeutic Dietetics II	<ol style="list-style-type: none"> Define and explain the pathophysiology, symptoms and principles of diet therapy and diet adjuncts for specific disease conditions. Explain the Nutrition care process for individual cases applying the principles of diet therapy and current nutrient recommendations as per social, cultural, and ethical norms. Demonstrate skills in designing menu for specific disease conditions using emerging trends and current health and safety norms. Justify the various dietary modifications critically with evidence based knowledge. Evaluate cases with detailed history and suggest appropriate dietetic measures for prevention with sustainable lifestyle modification.
ND18/6C/SPN	VI	Sports Nutrition	<ol style="list-style-type: none"> Outline the nutritional guidelines for optimal health and performance enhancement Discuss the different types of assessment of body composition. Plan diets for various sports events Assess, evaluate and analyse appropriate use of nutritional supplements and ergogenic aids Explain the nutritional concerns of female athletes Develop and justify the preparation of sports drinks
ND18/6E/PHN	VI	Public Health Nutrition	<ol style="list-style-type: none"> Define and summarize the nutritional problems facing the country. Classify the causes of malnutrition in India and demonstrate knowledge of various nutrition intervention schemes and assessment techniques for the community. Justify the role of nutrition in national

			<p>development through various key health indicators and government policies</p> <ol style="list-style-type: none"> 4. Explain breastfeeding policies of the country and to formulate low cost weaning foods using emerging trends and technologies. 5. Plan nutrition health education programs for vulnerable sections of the community promoting sustainability, gender equity and safe health practices.
ND18/6E/FPR	VI	Food Preservation	<ol style="list-style-type: none"> 1. Identify the spoilage in fresh and processed foods and describe the physical, chemical and biological quality loss in food. 2. Describe the methods implemented to preserve foods with desirable properties balancing social and cultural norms. 3. Classify and explain food additives, food adulterants and current trends in food standards related to food safety practices. 4. Distinguish various convenience foods processing and preservation techniques; applying emerging technologies maintaining sustainability and ecological balance. 5. Outline the various methods & materials in food packaging with emphasis on current technological advances.
ND18/6C/PR3*	VI	Food Service Management Practical	<ol style="list-style-type: none"> 1. Identify and classify various sectors of catering industry 2. Differentiate equipments, menu, styles of service, lay out, organisation structure and the food production cycle 3. Build the skills of interpretation and report writing on industrial visits 4. Assess food handling and sanitary practices in the food service establishments 5. Formulate and Standardization of different cuisines
ND18/6C/PR4*	VI	Therapeutic Dietetic Practical	<ol style="list-style-type: none"> 1. Analyse, interpret and evaluate case studies pertaining to Enteral and Parenteral feeding 2. Assess, design, formulate and prepare diets for various disease conditions 3. Market survey of various nutritional supplements and to create awareness regarding relevance to its usage in disease condition and economic viabilities 4. Take part in supervised dietetic internship for

			two weeks in a tertiary hospital for a hands on experience
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BSC ADVANCED ZOOLOGY

COURSE CODE	SEM	COURSE TITLE	COURSE OUTCOMES
ZB18/1C/1NV	I	PAPER-I – Invertebrata	<ol style="list-style-type: none"> 1. Distinguish invertebrates based on germ layers, coelom and symmetry and to explain the general characters with reference to major phyla. 2. Interpret the phylum protozoans with paramecium and plasmodium as examples. 3. Differentiate the hierarchy change from unicellular organization to multicellular forms with distinct morphological and physiological changes (e.g.. poriferans to coelentrates) 4. Illustrate the structure, function & parasitic adaptation in helminthes and characterize annelids. 5. Identify Arthropoda and compare it as the largest of all other phylum and understand Mollusca with structural and functional details classify and characterize Echinoderms with their evolutionary relationships, affinities to chordates
ZB18/2C/CHO	II	PAPER-II- Chordata	<ol style="list-style-type: none"> 1. Explain the characteristics changes from invertebrates to Prochordates and Chordates. 2. Differentiate jawless fishes from other fish forms. Students will be able to illustrate fish physiology with neat labeled diagram. 3. Explain Amphibian physiology with neat labeled diagrams and can highlight on Parental care in Amphibia. Relate and classify Reptilia and also can explain Calotes physiology. 4. Outline the special characters of birds with reference to their respiration, flight adaptation. 5. Discuss giving reasons mammalia as the highest form of vertebrates with reference to their brain development and other adaptation
ZB18/2C/PR1	II	PRACTICAL-I Invertebrata and Chordata	<ol style="list-style-type: none"> 1. Identify the invertebrates and chordates with their distinct morphological characters. 2. Demonstrate the digestive and nervous systems in Cockroach and digestive and Urinogenital system of Synagris. 3. Compare the different types fins in fish 4. Explain structure and function few invertebrate

			<p>and vertebrate specimens</p> <ol style="list-style-type: none"> Identify the deferent bones in frog, Bird and Mammalian dentition
ZB18/3C/CBY	III	PAPER-III -Cell Biology	<ol style="list-style-type: none"> Interpret the basic difference between prokaryotic and eukaryotic cell Explains individual cell organelle functions and their interactions. Describe the role of nucleus and chromosomes. Identify different stages of cell cycle and paraphrase the mechanism of carcinogenesis Apply the concepts of cytological techniques like cell fraction, staining and microscopy.
ZB18/3A/BC1	III	Allied Biochemistry Paper I (Offered by Zoology Department for Batch I)	<ol style="list-style-type: none"> Identify, explain and apply the basic concepts of biology and chemistry in living organisms Explain the role of pH, buffer and electrolytes importance in human body. Discuss the carbohydrates and its biological functions in our body and describing the regulation of blood glucose with reference to diabetes. Compare saturated and unsaturated fatty acids and explain their importance in metabolic pathways. Explain the different structure of protein and its significance to physiology
ZB18/4C/GEN	IV	PAPER-IV – Genetics	<ol style="list-style-type: none"> Explain common Mendelian traits and patters of inheritance in Humans. Moreover, genetic basis of blood grouping can be applied in identification of blood groups in individuals Cite the concept of hormone in sex determination and inheritance of sex-linked genes in drosophila, chicken and man Apply the insight of how DNA encodes genetic information, the role of mRNA & tRNA and how DNA directs protein synthesis. Evaluate the different types of mutation and biological basis of human syndrome. Predict the strategies to improve the quality and quantity of the existing population through genetic techniques.
ZB18/4C/PR2	IV	PRACTICAL-II- Cell Biology	<ol style="list-style-type: none"> Relate the Importance of RBC, WBC, its normal

		and Genetics	<p>range and its abnormalities.</p> <ol style="list-style-type: none"> Identify the different types of tissues namely hyaline cartilage, squamous epithelium, bone tissue, cardiac muscle, involuntary muscle and voluntary muscle. Interpret the different mendilian traits and patters of inheritance with respect to humans.
ZB18/4A/BC2	IV	Allied Biochemistry Paper II	<ol style="list-style-type: none"> Explain the enzyme, enzyme classification, basic properties of enzymes, models for enzyme-substrate binding and kinetics of enzymatic reactions Identify key intermediates and the location of the key processes in cellular respiration, to explain the chemiosmotic mechanism of ATP synthesis Explain the word vitamin and list the characteristics of vitamins & classify the vitamins according to its solubility. Explain the concepts related to intercellular communication and the maintenance of homeostasis; define the metabolic role of individual tissues and hormones in physiological and / or pathological processes in the body. Discuss the different composition and roles of nucleic acids in the cell and their interactions with each other & structures of nucleic acids at the molecular level.
ZB18/4A/ABC	IV	Allied Biochemistry Practical	<ol style="list-style-type: none"> Analyse the given carbohydrate Sample qualitatively. Analyse qualitatively the amino acid samples with neat procedures. Prepare starch, casein and gluten from potato, milk and wheat flour respectively. To evaluate oxalate and glycine volumetrically with neat procedure and principle. To explain the principle and protocol of chromatographic technique
ZB18/5C/APY	V	PAPER-V - Animal Physiology	<ol style="list-style-type: none"> Explain in detail about the digestive process and its associated health hazards. Outline the circulatory functions in various organisms and the disorders associated with it. Compile the physiological processes of respiration in various organisms and their respiratory health hazards. Compare the various excretory mechanisms in different animal groups and the diseases

			<p>associated with it.</p> <ol style="list-style-type: none"> Associate the functions of effector and their role in neurotransmission, muscular coordination and sensory perception in organisms.
ZB18/5C/DBY	V	PAPER-VI – Developmental Biology	<ol style="list-style-type: none"> Recite spermatogenesis and oogenesis. Paraphrase the events that lead up the process of fertilisation. Apply the concept of development in reproductive biology. Predict the difference between extra embryonic membrane and placenta in various classes of animals Resolve problems in infertility which plays a major role in current scenario.
ZB18/5C/EBY	V	PAPER-VII - Environmental Biology	<ol style="list-style-type: none"> Differentiate micro and macroenvironment, interaction of abiotic and biotic factor and animal relationship can be well understood. Procure knowledge about biogeochemical cycle, food chain, food web and energy flow in the ecosystem. Enables the students to know about the stratification of pond, lakes and marine ecosystem. Importance of coral reef can be better understood. Grasp ideas on population ecology, community ecology and biological effects of pollution Inculcate biotechnological methods of pollution detection, role of GEM in waste water treatment, wildlife management laws and organization involved in wildlife conservation.
ZB18/5C/BIO	V	PAPER-VIII – Biotechnology	<ol style="list-style-type: none"> Explain the history of biotechnology and their scope in agriculture, medical and environmental aspects. Select appropriate host and vector system for cloning and expression. Analyze gene expression using Blotting, PCR and Microarray. Apply Genetic Engineering principles for Biotechnological and Biomedical applications. Identify the basic issues of Biosafety, Bioethics and IPR
ZB18/5C/EZY	V	PAPER-IX - Economic Zoology	<ol style="list-style-type: none"> Explain the scopes and importance of Economic Zoology. Prepare the flow chart for the vermiculture. Explain the culture and maintenance of major carp, prawn, oyster and seaweed.

			<ol style="list-style-type: none"> 4. Explain the importance of dairy and dairy products with their nutritional significance. 5. Apply entrepreneur skill on animal husbandry.
ZB18/5E/BIN	V	ELECTIVE-I- Bio-Instrumentation	<ol style="list-style-type: none"> 1. Explain the principle, working mechanism & uses of microscopes and sterilization instruments. 2. Use technical knowledge of and practical experience with analyses in chromatography and electrophoresis 3. Outline the methods and uses of cryopreservation of live cells. 4. Apply the most common sensor principles used today and critically evaluate the applications of biosensors. 5. Analyse the features on nucleic acid sequences and interpret the results of the analysis.
ZB18/6C/IMY	VI	PAPER-X – Immunology	<ol style="list-style-type: none"> 1. Identifies the role of cells and organs involved in immune response and also compares and contrasts innate and acquired immunity. 2. Analyse the role of antigens, antibodies, complement components and the interactions of Ag-ab complexes, along with the understanding of CMI response and humoral immune response. 3. Outlines the processes involved in tumor and transplantation immunology and MHC. 4. Analyse the reasons involved in various hypersensitivity reactions and, autoimmune disorders and the concepts that would help them to improve their immune system. 5. Student will be able to plan the vaccination protocol in adults and children and will be able to select the appropriate application in investigation viz., Hybridoma technology, ELISA, immune electrophoresis, and Radio immune assay.
ZB18/6C/EVO	VI	PAPER-XI – Evolution	<ol style="list-style-type: none"> 1. Relate the morphology, physiology, biochemistry and embryology evidences of evolution 2. Explain the evolutionary theories by Lamark, Darwin and other evolutionist. 3. Describe the various parameters of evolution such as isolation mechanism, speciation, convergent & parallel evolution and adaptative radiation 4. Cite the strategies of vertebrate evolution. 5. State the overall concept of fossils and its formation.

ZB18/6C/MIC	VI	PAPER-XII – Microbiology	<ol style="list-style-type: none"> 1. Explain & outline the microbial classification with examples. 2. Describe structure of bacteria and methods of culturing & preservation in laboratory. 3. Explain the importance of bacteria and virus with reference to clinical importance to humans. 4. Evaluate the role of microbes in soil, water. 5. Analyze the different industrial products using microbes and its products.
ZB18/6E/MLT	VI	ELECTIVE-II- Medical Laboratory Techniques	<ol style="list-style-type: none"> 1. Explain safe laboratory practices and sterilization techniques. 2. List the appropriate diagnostic methods for evaluation of common hematologic disorders 3. Analyze analytical studies in Urine and Stool testing methods. 4. Identify testing methods adopted for viral, bacterial and protozoan diseases. 5. State special investigative procedures relating to lifestyle diseases
ZB18/6E/ENT	VI	ELECTIVE-III- Entomology	<ol style="list-style-type: none"> 1. Explain the biology of insects. 2. Design the methods of bee keeping and silkworm rearing 3. Discuss the disease causing insect with diagrams. 4. Analyse the various insect pests and their control measures. 5. Illustrate the various factors affecting insect life and their control measures.
ZB18/6C/PR3	VI	Developmental Biology, Environmental Biology, Evolution, Medical Laboratory Techniques and Bio- Instrumentation.	<ol style="list-style-type: none"> 1. Identify the different embryonic cell stages of frog and chick embryo. 2. Grasp knowledge about the importance and the range of carbonates, bicarbonates, carbondioxide and pH in the water sample provided for the survival of aquatic animals, the necessity of a hygrometer, sacchi's disc, pH meter and rain guage can be well understood. Especially field trip was the part of the curriculum; this will pave way to know about the adaption of rocky shore and sandy shore animals. 3. Understand the role of mimicry, colouration, adaptation pattern towards evolution; morphological and fossil evidences of evolution. 4. Competency to perform analytical studies in urine sample and human haemoglobin. 5. Handle the biological instruments in the laboratory provided.

ZB18/6C/PR4	VI	Animal Physiology, Microbiology, Immunology Biotechnology and Economic Zoology.	<ol style="list-style-type: none"> 1. Able to perform, analyse and report on experiments & observations in physiology. 2. Identify and isolate bacterial cultures.. 3. Compare the cells and organs in lymphoid systems, and outline the procedure involved in ABO blood grouping. 4. Demonstrate the principles, working and applications of PCR, Blotting techniques, chromatography, centrifuge, spectrometer and calorimeter. 5. Able to utilize the knowledge in fowl breeding and in entomology.
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SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	CM18/1C/FAC	Financial Accounting	<ol style="list-style-type: none"> 1. Explain the Basic Accounting principles and also concepts of Bank Reconciliation Statement & Rectification. 2. Outline the notions of Book-keeping under Single entry system and to ascertain profits under the same. 3. Analyse the principles of Accounting on Depreciation with the methods of providing Depreciation on assets. 4. Use the Accounting methods of Dependent Branches and also enhance the significance of Departmental Accounting with Inter Departmental transfers. 5. Prepare Joint Venture Accounts and explain AS & IND AS.
I	CM18/1C/BMG	Business Management	<ol style="list-style-type: none"> 1. Gain knowledge on the notions of Planning and Decision- making. 2. Outline the concepts of Organising with respect to Authority relationships, Delegation and Decentralisation. 3. Outline the Recruitment process and stages in Selection procedure. 4. Apply the Leadership styles and Motivational Theories in Directing. 5. Explain the principles and conceptions of Communication and control.
I	CM18/1N/EPB	Essence Of Practical Banking	<ol style="list-style-type: none"> 1. Identify the various fundamental concepts in banking industry 2. Compare the lending operations

			3. Examine the recent trends and technological concepts in banking industry.
II	CM18/2C/AFA	Advanced Financial Accounting	<ol style="list-style-type: none"> 1. Explain the knowledge of accounting principles in Partnership with respect to Admission, Retirement and Death of a partner. 2. Use the principles of Garner Vs Murray in cases of Insolvency of Partners. 3. Prepare the Accounts on Loss of stock claims and Loss of profit claims with respect to Fire Insurance. 4. Analyse the principles of Hire Purchase Accounting for high value goods and small value goods. 5. Outline the concepts of Investment Accounts with Cum-interest and Ex-interest quotations.
II	CM18/2C/BLP	Banking Theory Law & Practice	<ol style="list-style-type: none"> 1. Identify the concept's of banking 2. Apply Law's relating to banking industry 3. Evaluate the role played by the banking institutions in the economy 4. Assess the working of the banks 5. Compare and analyse various credit facilities.
II	CM18/2N/PFN	Personal Finance	<ol style="list-style-type: none"> 1. Analyse the fundamentals of personal finance 2. Apply the Financial tools in personal finance 3. Critically analyse the areas of investment, portfolio management and tax planning
III	CM18/3C/CAC	Corporate Accounting	<ol style="list-style-type: none"> 1. Analyse the accounting treatment of issue of shares and redemption of preference shares. 2. Prepare accounts relating to issue and redemption of debentures. 3. Prepare Statement of Profit & Loss and Balance Sheet of Joint Stock Companies as per Schedule III, Companies Amendment Act 2017. 4. Appreciate the accounting practices followed in alteration or reduction of share capital. 5. Apply accounting principles in preparation of Statement of Affairs and final Statement of Accounts with respect to winding up of companies
III	CM18/3C/MLW	Mercantile Law	<ol style="list-style-type: none"> 1. Apply basic elements required to enter into a valid contract under the Indian Contract Act 1872 2. Outline the remedies available to individuals in case of breach of contract. 3. Analyse the relationship between agent and principal and its legalities 4. Understand legal provisions relating to Indemnity, Guarantee, Bailment & Pledge. 5. Gain knowledge on the main principles which govern trade and business under the Sale of

			Goods Act 1872
III	CM18/3C/RMS	Research Methodology And Statistical Techniques	<ol style="list-style-type: none"> 1. Identify the various kinds of research and outline the appropriate research design and process 2. Apply quantitative and qualitative methods for data Collection, analysis and interpretation for business related research problem 3. Compute, Analyse and interpret the results of bivariate and multivariate regression and correlation analysis. 4. Formulate hypothesis and select appropriate test according to the sample size 5. Use the appropriate non- parametric test in hypothesis testing.
III	CM18/3C/ECA	Elements Of Cost Accounting	<ol style="list-style-type: none"> 1. Outline the basic principles and concepts of cost accounting 2. Prepare the statement of Cost and Provide insight into control of cost 3. Prepare the statements relating to material purchase, issue and losses 4. Compute the Labour cost under various remuneration schemes 5. Analysis the different methods to compute overhead cost
IV	CM18/4C/CMT	Costing Methods And Techniques	<ol style="list-style-type: none"> 1. Reconcile the profits between Cost and Financial accountings 2. Analysis the principles of computing profits with relating to job and Batch order costing system and construction contract costing 3. Assess the cost of maintenance of transport service 4. Evaluate the cost of the product at each stage of manufacturing. 5. Make decisions based on techniques of marginal costing
IV	CM18/4C/ITL	Indirect Tax Laws	<ol style="list-style-type: none"> 1. Outline the basic concepts of taxation. 2. Assess the framework of time, place of supply, reverse charge mechanism & related provisions. 3. Acquire the knowledge on the basis of assessment & returns to be filed. 4. Acquire knowledge on the basis of levy & provision relating to the supply of IGST & SGST. 5. Gain knowledge on Customs Act & related provisions.
IV	CM18/4C/MAG	Management Accounting	<ol style="list-style-type: none"> 1. Understand the basic concepts of management accounting and human resource accounting 2. Analyse and interpret financial statements with the help of ratio analysis.

			<ol style="list-style-type: none"> 3. Prepare cash flow statement as per AS III and understand the concept of fund flow. 4. Analyze budgeting techniques for forecasting 5. Compute the various cost variances
IV	CM18/4C/CAB	Computer Applications In Business	<ol style="list-style-type: none"> 1. Outline the various tools of excel such as entering data, editing, formatting, referencing cells, sorting and filtering data 2. Demonstrate the understanding of the functions of excel such as goal seek, scenario, pivot table, What if analysis, vlook up, charts and graphs. 3. Formulate solutions by using correlation, regression, ANOVA and Chi square test in SPSS. 4. Evaluate the basic concepts in Tally and prepare Profit & loss a/c and Balance sheet of companies in Tally. 5. Identify stock groups, stock categories & stock items and manage inventory in Tally.
V	CM18/5C/FMG	Financial Management	<ol style="list-style-type: none"> 1. Apply conceptual understanding about the role and functions of the finance manager in the new millennium 2. Identify various components in the firm's capital structure and use leverages to construct an optimum capital structure. 3. Evaluate feasible financial alternatives while making long term investments 4. Assess various dividend policies adopted by firms 5. Formulate day to day working capital requirements of the firm using working capital techniques.
V	CM18/5C/AUD	Auditing	<ol style="list-style-type: none"> 1. Apply the concept of Audit, its principles and objectives 2. Gain knowledge on the Importance of Internal Audit, Internal Check and Internal Control 3. Apply the techniques of Vouching and Valuation of Assets and Liabilities in Auditing 4. Acquire knowledge on the duties, rights and responsibilities of Auditor 5. Prepare Audit report and gain knowledge on EDP auditing
V	CM18/5E/MKG	Marketing	<ol style="list-style-type: none"> 1. Explain the fundamental concepts of marketing along with targeting, segmenting & positioning. 2. Identify the key strategies of various marketing functions. 3. Compare the various platforms of sales promotion. 4. Select the learned various choice of channels in

			<p>the current Indian scenario of e-marketing.</p> <p>5. Demonstrate the concept of decision making process with technology.</p>
V	CM15/5E/MIS	Management Of Information Systems	<ol style="list-style-type: none"> 1. Outline the concepts & Types of Management Information System 2. Gain knowledge on MIS Planning, Development & Control 3. Identify different support models & acquire knowledge on BPR 4. Analyse the role of Information Technology in corporate decision making 5. Gain ethical awareness 7 moral reasoning of MIS Problems & Issues.
V	CM18/5C/CLP	Company And Limited Liability Partnership Laws	<ol style="list-style-type: none"> 1. Explain nature and kinds of companies and procedure for formation of companies 2. Gain knowledge on the Memorandum of Association, Articles of Association and Prospectus and the doctrines of Ultra Vires, Constructive Notice and Indoor Management 3. Learn different ways of obtaining membership in a company and its termination and the procedure for transfer and transmission of shares 4. Understand the provisions regarding conduct of meetings of the Board of Directors and Shareholders, Voting Rights and Resolutions, Procedure for Winding up and Law relating to Insolvency and Bankruptcy Code(IBC) 5. Outline the concept of LLP and discuss the Rights and Liabilities and the conversion of Firms, Private Companies and Unlisted Public companies
V	CM18/5C/IT1	Income Tax Theory Law And Practice I	<ol style="list-style-type: none"> 1. Demonstrate the understanding of the basic concepts and definitions under the Income Tax Act. 2. Assess the residential status of an assessee & the incidence of tax. 3. Compute income of an individual under the head salaries. 4. Ability to compute income from house property. 5. Evaluate income from a business carried on or from the practice of a Profession.
V	CM18/5SS/POI	Principles Of Insurance	<ol style="list-style-type: none"> 1. Explain the concepts and importance of insurance 2. Outline the different polices of life insurance 3. Gain knowledge on the concept of Fire Insurance 4. Outline the concepts of Marine Insurance policies

			5. Apply the principles of Motor Vehicle Insurance, Burglary & Personal Accident Insurance
V	CM18/5SS/RMT	Retail Management	<ol style="list-style-type: none"> 1. Explain the concepts of Retailing and discuss the various formats of Retail. 2. Acquire knowledge on the different functions and characteristics of Retailing. 3. Explain the branding in Retailing. 4. Outline the usage of Information Technology in Retailing and the working of Retail Management Information System. 5. Identify the principles of Visual Merchandise Management and E-tailing in respect to Indian context.
VI	CM18/6C/FMS	Financial Markets And Services	<ol style="list-style-type: none"> 1. Outline the roles and functions of Indian financial market 2. Analyse the money market and its instruments 3. Evaluate the stock exchange operation and trading system 4. Assess the working of mutual fund and venture capital by applying the theoretical concepts in real world situation. 5. Compare the various modes of lending finance and role of merchant bankers.
VI	CM18/6C/IT2	Income Tax Theory Law And Practice II	<ol style="list-style-type: none"> 1. Compute short term & long term capital gains. 2. Evaluate income under the residuary head and apply the provisions of Clubbing of Income. 3. Demonstrate an understanding of set off & carry forward of losses and also identify the incomes exempt from tax. 4. Identify the different deductions available to an individual from Total income and the process of e-filing. 5. Assess taxable income & tax liability of an individual.
VI	CM18/6C/SAC	Special Accounts	<ol style="list-style-type: none"> 1. Analyse the various methods of valuation of Goodwill and Shares. 2. Appreciate the accounting aspects of amalgamation of companies as per AS14. 3. Prepare consolidated financial statements of Holding Companies in accordance with AS21 4. Gain specialised knowledge in the preparation of final accounts of Banking Companies as per the revised schedule attached to Banking Regulation Act 1949. 5. Apply the provisions of IRDA Regulations, 2002 in the preparation of final accounts of Life Insurance and General Insurance Companies.
VI	CM18/6E/HRM	Human	1. Identify the Environment in which HR

		Resources Management	<p>activities are carried on</p> <ol style="list-style-type: none"> Analyse about the various processes of HR planning and compensation structure Select the various methods of recruitment and safety measures to be employed by the employees Assess about employee welfare and grievance handling Analyse on the latest trends in Human Recourses Management
VI	CM18/6E/CSM	Corporate Planning & Strategic Management	<ol style="list-style-type: none"> Analyse the business environment using various strategic management technique. Formulate globally competent business strategies. Select suitable business strategies using various business models. Utilise leadership styles in strategic implementation and ethics. Evaluate strategies based on structural considerations.
VI	CM18/6E/IEP	Innovation And Entrepreneurship	<ol style="list-style-type: none"> Identify the concept of entrepreneurship. Motivate to utilise the facilities offered to become entrepreneurs Formulate various concepts of idea generation & use of feasibility analysis. Analyse the various functions of the financial and support institutions. Assess and apply the various state and central government schemes.
	CM18/6E/MSF	Marketing In Special Fields	<ol style="list-style-type: none"> Outline the importance of services and elements of the services marketing mix Identify the characteristics of industrial and rural markets Analyse the importance and scope of co operative marketing societies and social marketing Appreciate the meaning and importance of e commerce and environmental marketing Evaluate the global marketing environment

B.COM CORPORATE SECRETARYSHIP

COURSE CODE	SEMESTER	COURSE TITLE	COURSE OUTCOMES
CS18/1C/FIA	I	Financial Accounting	<ol style="list-style-type: none"> 1. Sound knowledge on fundamentals of Accounting Concepts and Conventions, Accounting Equation and Trial Balance 2. Prepare Financial Statements of trading and manufacturing firms 3. Compute depreciation for fixed assets under the Straight Line and Diminishing Balance methods 4. Discuss the treatment and allocation of expenses in Departmental Accounting and ascertainment of the profits of branches. 5. Compute Fire Insurance Claims under Loss of Stock and Loss of Profit Policies
CS18/1C/BUM	I	Business Management	<ol style="list-style-type: none"> 1. Explain the concept of management and process planning 2. Outline the concept of organising, departmentation, delegation, centralization and decentralisation 3. Outline selection procedure and various methods of training 4. Apply knowledge of directing techniques for motivation 5. Identify the need and importance of control
CS18/2C/AFA	II	Advanced Financial Accounting	<ol style="list-style-type: none"> 1. Ability to compute interest, Cash price and Hire Purchase price in case of purchase of an asset under Hire Purchase System 2. Assess the profitability and financial position of small firms under Statement of Affairs Method and Conversion Method 3. Apply Partnership fundamentals and accounting procedures in the event of Admission, Retirement and Death of a Partner 4. Discuss the accounting procedures in cases of Dissolution of Partnership firms and Insolvency of Partners 5. Outlines the IFRS and Ind Accounting Standards with special reference to Ind AS1, Ind AS2, Ind AS7, Ind AS8, Ind AS12, Ind AS16, Ind AS18, Ind AS28, Ind AS33, Ind AS38
CS18/2C/COL	II	Commercial Law	<ol style="list-style-type: none"> 1. Knowledge of elements of Contract 2. Explain the Performance and Breach of Contract 3. Distinguish between Bailment and Pledge 4. Discuss Indemnity and Guarantee 5. Outline the provision relating to sale of

			goods
CS18/3C/CA1	III	Corporate Accounting I	<ol style="list-style-type: none"> 1. Exhibit accounting knowledge on issue, forfeiture and reissue of shares of companies 2. Analyse accounting procedure for redemption of preference shares in companies 3. Acquire in depth knowledge on issue of debentures and conditions for their redemption as per Companies Act, 2013 4. Demonstrate with knowledge on acquisition of business and compute profits prior to incorporation 5. Prepare the final accounts of Companies as per Revised Schedule VI of the Companies Act 2013
CS18/3C/CLS	III	Company Law and Secretarial Practice I	<ol style="list-style-type: none"> 1. Knowledge of company law and its evolution 2. Illustrate the procedure for incorporation of a company 3. Examine the role and responsibilities of the company secretary 4. Identify the various sources of capital, issue and forfeiture of shares and allotment of shares 5. Distinguish a member from a shareholder, their rights, duties and liabilities
CS18/3C/GEL	III	General Laws	<ol style="list-style-type: none"> 1. Knowledge of fundamental rights and Directive Principles of State Policy given in the Constitution of India 2. Outline the various provisions to be complied for arbitration and conciliation proceedings 3. Knowledge of the various statutory requirements relating to transfer of property 4. Apply the knowledge of legal ethics related to mortgage, lease and actionable claim 5. Employ appropriate provisions to register a society in compliance with the Registration of Societies Act, 1860
CS18/3C/MAR	III	Marketing	<ol style="list-style-type: none"> 1. Discuss the Traditional and the Modern concepts of marketing 2. Discuss Market segmentation and the bases of segmentation 3. Determine the Marketing Mix with the identification of tangible and intangible attributes 4. Explain Promotional mix and factors that

			<p>affect its composition</p> <p>5. Update recent innovations in marketing</p>
CS18/3A/BS1	III	Allied III:- Business Statistics I	<ol style="list-style-type: none"> 1. Outline the scope of statistics and able to prepare frequency table 2. Represent data graphically and diagrammatically 3. Ascertain the various measures of central tendency 4. Analyse the variation in the given series with the aid of measures of dispersion 5. Measure the skewness of the given data
CS18/4C/CA2	IV	Corporate Accounting-II	<ol style="list-style-type: none"> 1. Extensive knowledge of the valuation of goodwill and shares under various methods 2. Apply the accounting procedure relating to amalgamation, absorption and external reconstruction 3. Apply accounting procedure pertaining to internal reconstruction, liquidation of companies and alteration of share capital 4. Prepare final accounts of banking companies 5. Prepare final accounts of insurance companies
CS18/4C/CLS	IV	Company Law & Secretarial Practice-II	<ol style="list-style-type: none"> 1. Knowledge of role and responsibilities of key managerial personnel in a company 2. Explain the rules and procedure for conducting various types of meetings 3. Discuss the legal procedure for payment of dividend and type of audit 4. Outline the borrowing powers of directors and shareholders and law of acceptance of deposits 5. Explain the concept of merger ,compromises and winding up
CS 18/4C/INS	IV	Insurance	<ol style="list-style-type: none"> 1. Recall the concepts of Insurance ,its significance and principles 2. Explain the complete structure of the plans and Policies of Life Insurance 3. Knowledge on the principles of fire insurance, types of fire policies, policy settlement and claim 4. Explain the principles relating to marine insurance and its types 5. Outline the concept of risk management, and evaluate the types of risk and risk management techniques
CS18/4C/AUD	IV	Auditing	<ol style="list-style-type: none"> 1. Explain the objectives of auditing and its classifications 2. Outline the procedure for vouching cash and credit transactions and distinguish

			<p>between Internal audit and External audit</p> <ol style="list-style-type: none"> Discuss the techniques applied by an auditor in verification and valuation of assets and liabilities Explain the procedure regarding appointment and removal of auditors and outline on the powers and liabilities of the auditors as per the Companies Act of 2013 Discuss the procedure of audit for educational institutions, banks and Insurance companies and assess the need for E-audits
CS18/4A/BS2	IV	Allied Paper IV – Business Statistics-II	<ol style="list-style-type: none"> Apply the basic techniques of correlation to establish relationship between any two variables Use regression analysis to obtain the value of one variable given the value of another. Also can ascertain the coefficient of correlation and the mean value of the two variables with the aid of regression equations Identify the trend of the variable based on given data Construct a price/ quantity/ cost of living/ industrial index for any given commodity based on the data given for a period Demonstrate the knowledge of interpolating or extrapolating a value for the given period
CS18/5C/ITT	V	Income Tax Theory, Law And Practice-I	<ol style="list-style-type: none"> Describe the basic concepts and relevance of the method of accounting in computation of Taxable Income Identify the residential status of various persons and the incidence of tax Compute allowances, perquisites and assessment of salary income Calculate Income from self occupied and let out house property Assess the Income under the head Capital Gains and tax liability on short term and long term Capital Gains
CS18/5C/END	V	Entrepreneurial Development	<ol style="list-style-type: none"> Evaluate the factors that influence entrepreneurship Assess the role, problems, policy framework and support measure of SSI and compare SSI with large-scale units Formulate Design project reports Identify institutions that provide financial support to entrepreneurs Explain women entrepreneurship and

			discuss the problems faced by them
CS18/5C/COA	V	Cost Accounting	<ol style="list-style-type: none"> 1. Identify the need and importance of installation of a costing system 2. Apply the different techniques of material pricing which is suitable for the industry 3. Use various methods of Wage Payment in the computation of remuneration and incentives of workers 4. Ability to allocate, apportion and absorb overheads 5. Sound knowledge on various methods of costing and able to identify the appropriate method for the respective industry
CS18/5C/BUT	V	Business Taxation	<ol style="list-style-type: none"> 1. Discuss the basic principles and canons of indirect Taxation 2. Knowledge of the concepts of CGST, IGST, SGST and UGST and their differences 3. Outline the procedure for levy and registration 4. Discuss supply its meaning, scope along with place and time of supply. outline the procedure for input Tax credit 5. Profound knowledge on various provisions of customs act
CS18/5C/FIM	V	Financial Management	<ol style="list-style-type: none"> 1. Knowledge of finance concepts, functions and financial goals 2. Computation of specific Cost of Capital- Cost of Debt, Equity, Preference, Retained Earnings and Weighted Average Cost of Capital 3. Explain the concept of capital structure, theories, source of finance, leverage and its impact on shareholders return 4. Apply capital budgeting techniques of Pay Back, Net Present Value, Internal Rate of Return, Accounting Rate of Return and Profitability Index for project selection in a firm 5. Calculate the required working capital for a firm in consideration of current assets and current liabilities
CS18/6C/ITT	VI	Income Tax Theory, Law And Practice-II	<ol style="list-style-type: none"> 1. Calculate the Business Income and Professional Income with all admissible deductions and disallowances 2. Assess the Income under the head Income from other sources 3. Outline the provisions of clubbing of Income, Inter head and Intra head adjustment and carry forward of losses

			<ol style="list-style-type: none"> 4. Compute the various deductions that an individual can claim from the gross income and calculate the taxable Income and tax liability of individuals 5. Demonstrate the procedure for assessment, filing of return and the powers of IT authorities
CS18/6C/MAA	VI	Management Accounting	<ol style="list-style-type: none"> 1. Profound knowledge on the nature, scope and utility of management accounting 2. Analyze profitability, turnover and financial position of companies through computation of ratios 3. Analyse the flow of funds and cash with knowledge of working capital 4. Prepare the different types of budgets and compute the variances 5. Apply marginal costing techniques and calculate break-even point and profit volume ratio
CS18/6C/CSR	VI	Corporate Social Responsibility	<ol style="list-style-type: none"> 1. Outline the Corporate Social Responsibility, importance and factors affecting it 2. Identify the hurdles faced in complying CSR, the rules stated in Companies Act 2013 3. Practical Knowledge of social audit in India 4. Explain Corporate Governance and the practices followed in various business 5. Demonstrate Legal rules relating to prevention and control of Air pollution, Water pollution and Environmental Protection Act
CS18/6C/BLP	VI	Banking Law & Practice	<ol style="list-style-type: none"> 1. Outline the role and functions of RBI and commercial banks 2. Apply practical knowledge on opening, operating and closing of bank accounts by various types of customers 3. Identify and evaluate the principles of lending, types of loans and functions of various financial institutions 4. Compile various provisions of the different types of negotiable instruments 5. Use of updated technology in the banking sector

ETHIRAJ COLLEGE FOR WOMEN (AUTONOMOUS)

COURSE OUTCOMES

SELF SUPPORTING- UG



BA ENGLISH & COMMUNICATIONS SKILLS

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	CE18/1C/PY1	Poetry – I	<ol style="list-style-type: none">1. Apply their gained knowledge on various devices and techniques of poetry in writing2. Thematically analyse, interpret and appreciate human life and experience in British Poetry.3. Identify human relationship with nature through select poems of Romantic Poets in English.4. Critically analyse the influence of society, religion, politics and culture on Art and Literature.
I	CE18/1C/PR1	Prose – I	<ol style="list-style-type: none">1. Demonstrate the aptitude to read, understand, analyze, interpret, and deduce from the prose texts that are at the core of diverse traditions of English language and literature.2. Formulate and compose prose, with necessary competencies gained, that is effective for its audience and context, mature in its voice and cogency; accurate for its purpose and person.3. Utilize the knowledge gained in the writing process with emphasis on reading, inquiry and revision.4. Compare and contrast different forms, genres and authors' methodology from various parts of the world
I	CE18/1A/TM1	Literary Trends and Movements – I	<ol style="list-style-type: none">1. Explain the basic tenets, concepts and ideologies in British Literature.2. Evaluate and appreciate literary texts in the context of their historical milieu.3. Critically analyse author's viewpoints which considerably depend on social and political changes.4. Use the knowledge gained to efficiently answer questions based on British

			Literature in competitive exams.
II	CE18/2C/PY2	Poetry – II	<ol style="list-style-type: none"> 1. Identify the genres of poetry 2. Discuss poetry with reference to the social and political background in different countries. 3. Critically analyse, appreciate and interpret the diverse poetry in English written by native English speakers and non native English speakers. 4. Develop an interest and ability to write poetry.
II	CE18/2C/PR2	Prose – II	<ol style="list-style-type: none"> 1. Utilize the aptitude to read, understand, analyze, interpret, and deduce from the prose texts that are at the core of diverse traditions of English language and literature. 2. Outline the evidence from literary texts to support, evaluate and reflect from the Genesis to contemporary prose 3. Demonstrate an ability to use terms, types and theories of critical or rigorous reading. 4. Utilize the knowledge gained in the writing process with emphasis on reading, inquiry and revision
II	CE18/2A/TM2	Literary Trends and Movements – II	<ol style="list-style-type: none"> 1. Critique American literary texts against their social and political background 2. Interpret literary texts from cross-cultural perspectives 3. Identify the major literary, philosophical, artistic and feminist movements that influenced American literature 4. Evaluate the socio-cultural and the historical context of a given text in American literature
III	CE18/3C/DR1	Drama – I	<ol style="list-style-type: none"> 1. Identify the types and elements of Drama 2. Discuss the significance of human, moral, ethical and aesthetic values 3. Analyse a play from a critical perspective, including dramatic structure, character analysis and language investigation 4. Raise significant questions, reach well-reasoned conclusions, weigh alternative systems of thought and enhance their creative expression
III	CE18/3C/FC1	Fiction – I	<ol style="list-style-type: none"> 1. Interpret literary texts from a historical

			<p>and social perspective.</p> <ol style="list-style-type: none"> 2. Assess literary texts with critical and analytical proficiency. 3. Skillfully use appropriate vocabulary acquired from reading. 4. Utilize their creative faculties through an understanding of diverse human experience portrayed in Literature.
III	CE18/3A/WMY	Introduction to World Mythology	<ol style="list-style-type: none"> 1. Discuss the mystical, cosmological, sociological and pedagogical functions of myths. 2. Identify the connection and references to different mythologies of the world in literature, films, music and visual arts. 3. Compare the myths of different cultures in terms of their aesthetic, literary and social values. 4. Analyse the extended meaning a text provides, with an understanding of myths across the world.
IV	CE18/4C/DR2	Drama – II	<ol style="list-style-type: none"> 1. Identify characters and actions through role playing which will deepen their levels of concentration to extend the use of memory in recalling and reconstructing experiences 2. Use the knowledge gained to face the social issues and communicate the importance of responsibility to their community 3. Analyse the play and to get involved in personal engagement with drama drawing connections between the self and the society 4. Think and communicate effectively in the current information-intensive society.
IV	CE18/4C/FC2	Fiction – II	<ol style="list-style-type: none"> 1. Develop the ability to scrutinize short stories and novels logically and interpretively, to classify and evaluate literary elements like plot, character, setting, tone, point of view, theme, style, symbol, metaphor, and image 2. Discuss the subjects which are fundamental to the author's work and gain insights into the principles that govern human behaviour while analyzing critically the framework of the genre

			<ol style="list-style-type: none"> 3. Analyze the usage of a range of literary devices such as (though not limited to) plot, characterization, exposition, point of view, themes, motifs, symbols, style, tone, atmosphere, climax, dialogue, imagery, irony, motivation, narration, pacing, realism, naturalism, voice and satire. 4. Create and exhibit an awareness of the significance of fiction and of the role it plays in the larger culture by being conversant in debates concerning literary values as a global creative endeavour
IV	CE18/4A/LTC	Introduction to Literary Criticism	<ol style="list-style-type: none"> 1. Discuss the broader ways in which literary theory applies to various works of literature and to aspects of contemporary culture. 2. Use literary and theoretical concepts to develop their own interpretations of literary texts. 3. Explain the meaning, significance and value of specific literary works. 4. Analyze specific literary theories in order to distinguish them from other theories and to identify the structure and logic of their arguments.
V	CE18/5C/WLT	World Literature	<ol style="list-style-type: none"> 1. Demonstrate critical and analytical understanding of the deeper implications of the literary texts from diverse cultures 2. Proficiently interpret the contexts and conditions of literary texts in different genres and from different countries 3. Apply personalised knowledge in recognising and empathizing with the position of the marginalised communities 4. Critically analyze the influence of society, philosophy, religion, politics and culture on literatures across the world.
V	CE18/5C/LAC	Literature and Culture	<ol style="list-style-type: none"> 1. Apply critical and theoretical knowledge to the reading of multiple genres. 2. Identify critical ideas, values and themes that appear in cultural texts. 3. Assess the impact of cultural texts on society. 4. Exhibit intellectual flexibility and cultural adaptability in an inter-dependent world.
V	CE18/5C/LL1	Language and	<ol style="list-style-type: none"> 1. Discuss the evolution of the English

		Linguistics I	<p>Language and its universal appeal.</p> <ol style="list-style-type: none"> Utilise the multi-faceted nature of Language in effective communication Identify the different branches of Linguistics Exhibit language proficiency in professional and social discourses.
V	CE18/5C/ACN	Advanced Communication	<ol style="list-style-type: none"> Evaluate key theoretical approaches used in the interdisciplinary field of communication. Analyse the primary academic writing associated with the communication discipline by using various techniques. Identify critical and innovative thinking that displays competence in oral and written communication. Analyse the effectiveness and contextual significance of various types of communication.
V	CE18/5E/SWI	Subaltern Writings of India	<ol style="list-style-type: none"> Compare the concepts of caste, class and marginalization Analyse and evaluate the environmental, social, cultural, economical and legal aspects of the marginalised Discuss the works theoretically in the process of interconnecting cultural concepts and culture of the inclusive Address the rights of the marginalized.
		Self Study Course For Advanced Learners Translation Studies	<ol style="list-style-type: none"> identify the linguistic and textual divergence between languages interpret literary work in a linguistic and cultural context identify the problems encountered in translated works Synthesise ideas of varied cultures and tradition one is not familiar with through literatures in translation
VI	CE18/6C/SHK	Shakespeare	<ol style="list-style-type: none"> Explore Shakespearean plays from the perspectives of his audience. Analyze the many merits of Shakespearean plays which account for his everlasting fame Develop a keener insight into the productive genius of Shakespeare. Interpret the myriad aspects of Shakespearean plays and their

			contemporary relevance and significance
VI	CE18/6C/WOW	Women's Writing	<ol style="list-style-type: none"> 1. Discuss the evolution of women's writings in the social, political and historical contexts. 2. Assess feminist dogmas and analytically approach issues that impact the gender, race, class and position of women and their writings. 3. Examine the responses and approaches of women's writing to patriarchy in the use of language, education and cultural awareness 4. Critique and consolidate various interpretations and analysis of literary texts in women's writing
VI	CE18/6C/LL2	Language and Linguistics II	<ol style="list-style-type: none"> 1. Distinguish central linguistic terms, concepts and theories 2. Analyze linguistic concepts in terms of syntax, phonetics and semantics 3. Identify and analyze specific sounds and systematic properties of sound system of English 4. Apply the phonetic symbols to transcribe words and sentences in an effective way.
VI	CE18/6E/ FJM	Fundamentals of Journalism	<ol style="list-style-type: none"> 1. Evaluate the truthfulness, accuracy and objectivity of news stories in a critical, creative and independent manner 2. Draft and present bipartisan journalistic articles by following the 5 'Ws' and 'H' technique with a proper lead, body and ending 3. Demonstrate skill in writing different types of newspaper columns, including, Interviews, Profiles, Reviews, Obituaries, Editorial, Features and Columns 4. Proofread, edit, organize and revise news stories and also write catchy and attractive headlines for them
VI	CE18/6E/LEN	Literature and Environment	<ol style="list-style-type: none"> 1. Identify the changing nature of keywords and ideas such as 'nature,' 'country,' 'environment,' and 'landscape' 2. Examine some of the main challenges, problems, and priorities in the field of environmental literary studies cutting across culture, gender and nationalities. 3. Assess the core literary texts, the

			<p>conceptual issues and interpret them</p> <p>4. Formulate and evince ways of thinking about humanity's relationship with nature thereby enabling the process of establishing a better environment</p>
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BA BUSINESS ECONOMICS

SE M	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	BE18/1C/PME	Principles of Micro Economics	<ol style="list-style-type: none"> 1. Explain the utility analysis and consumption equilibrium in detail 2. Demonstrate knowledge on the demand and supply analysis 3. Discuss cost functions and production functions 4. Explain the profit maximizing price and output for a firm operating in different forms of market. 5. Outline the nature and consequences of general equilibrium (Pareto Optimality).
I	BE18/1C/SBE	Statistics for Business Economics	<ol style="list-style-type: none"> 1. Outline the classification of data and explain the facts using the measures of central value and dispersion 2. Utilise the knowledge of probability and theoretical distributions for interpreting statistical results 3. Demonstrate the methods of sampling and evaluate the significance of the hypothesis. 4. Compute the co- variation between economic variables and determine the cause and effect relationship between them 5. Identify the net change in the variable over a period of time.
I	BE18/1A/BAF	Basic Financial Accounting	<ol style="list-style-type: none"> 1. Discuss the basic concept and principles of accounting 2. Apply the knowledge on preparing the trial balance sheet 3. Demonstrate an insight of the concept and preparation of final accounts 4. Apply the practical knowledge of calculating depreciation 5. Use the concepts and proforma of bank reconciliation statement
I	BE18/1N/QPA	Questionnaire and its Practical Applications	<ol style="list-style-type: none"> 1. Demonstrate the sampling methods and data collection 2. Plan the questionnaire based on data 3. Apply the information with the help of field survey and draft the final report.
II	BE18/2C/ECT	Economic Thought	<ol style="list-style-type: none"> 1. Discuss the evolution of early economic ideas 2. Explain the economic ideas of classical

			<p>economists</p> <ol style="list-style-type: none"> 3. Compare the thoughts of neo- classical, institutional economics and modern economics. 4. Explain the modern economic theories 5. Outline the ideas of renowned Indian Economists.
II	BE18/2C/MBE	Mathematics for Business	<ol style="list-style-type: none"> 1. Explain matrices and its properties, solving linear equations, Input-Output analysis 2. Compute problems in differential calculus 3. Use calculus in demand and supply functions 4. Apply partial differentiation in Economics 5. Compute definite and indefinite integrals and its application in Economics
II	BE18/2A/MAC	Management Accounting	<ol style="list-style-type: none"> 1. Discuss the fundamentals of management accounting 2. Compute ratio analysis 3. Demonstrate the preparation of cash flow statement 4. Outline the costing and management systems 5. Identify on types of cost and cost volume project relationship.
II	BE18/2N/WOE	Women Entrepreneurship	<ol style="list-style-type: none"> 1. Discuss the role of an entrepreneur in economic development 2. Explain the growth and challenges taken by the women entrepreneur 3. Develop the case studies of successful entrepreneurs
III	BE18/3C/EMB	Economics of Money And Banking	<ol style="list-style-type: none"> 1. Discuss the importance of the monetary sector and study the monetary standards 2. Explain the concepts of demand for and supply of money 3. Demonstrate the impact of inflation on interest rates. 4. Discuss the central banking and its functions 5. Discuss the functions and practices of commercial bank
III	BE18/3C/IPP	Indian Economy: Performance and Policies	<ol style="list-style-type: none"> 1. Outline the analysis of economic planning in India 2. Discuss the performance of agricultural sector and food security measures 3. Explain the structure and composition of industrial sector 4. Explain the contribution of the service

			<p>sector</p> <ol style="list-style-type: none"> 5. Discuss the performance of the poverty alleviation and employment Generations programmes.
III	BE18/3A/MMA	Marketing Management	<ol style="list-style-type: none"> 1. Discuss the scope and importance of marketing 2. Explain the product classification and product planning and packaging 3. Explain the basis of pricing strategies 4. Outline the factors influencing promotion mix decisions 5. Discuss the role of distribution at the National level
IV	BE18/4C/ILT	International Trade	<ol style="list-style-type: none"> 1. Discuss the main economic theories and models of International trade 2. Outline various trade policies and effects of protection trade 3. Explain the BOP and BOT 4. Analyse the foreign exchange rate and various related concepts of exchange control 5. Discuss the role of major international institutions in trade and development.
IV	BE18/4C/IEC	Introduction to Econometrics	<ol style="list-style-type: none"> 1. Apply simple linear regression models to understand the cause and effect relationship between economic variables. 2. Explain the assumptions, derivation and properties 3. Analyse the functional forms of regression models 4. Discuss the consequences of violating old assumptions and remedial measures to overcome the same 5. Apply regression models that involve dummy variables
IV	BE18/4A/ASP	Allied: Advertising and Sales Promotion	<ol style="list-style-type: none"> 1. Discuss the concept of advertising, advertising agencies and campaigns 2. Explain advertising media 3. Illustrate the design and execution of advertisements. 4. Explain the scope and role of sales promotion 5. Apply the sales promotion campaigns.
V	BE18/5C/PMA	Principles of Macro Economics	<ol style="list-style-type: none"> 1. Discuss the basic concepts of National Income 2. Explain the theories of consumption

			<p>functions</p> <ol style="list-style-type: none"> Analyse the importance of investment function and multiplier Relate the relevance of Keynesian theory of Income, Output and Employment and AD –AS model present day context Discuss the IS-LM curve
V	BE18/5C/PUE	Public Economics	<ol style="list-style-type: none"> Discuss the basic aspects of public finance Explain the theories of public expenditure and public debt Outline the source of public revenue Examine the centre state financial relations, budget and financial administration Outline the implications of direct and indirect taxes
V	BE18/5C/MBS	Managerial Economics and Business Strategy	<ol style="list-style-type: none"> Discuss the method of demand forecasting Apply knowledge on the problems of capital budgeting, size of capital budget and cost of preference share capital Demonstrate investment decisions and leverage analysis Illustrate various pricing methods Explain the breakeven analyses
V	BE18/5C/EBM	Entrepreneurship and Small Business Management	<ol style="list-style-type: none"> Discuss the evolution, characteristics and growth of entrepreneurship in India Demonstrate entrepreneurial competencies Explain the role of small enterprises in economic development Outline the process of project identification and selection Plan project report and project appraisal
V	BE18/5E/CBE	Computer Applications in Business Economics	<ol style="list-style-type: none"> Discuss the concepts and terminology used in computer applications in business. Explain the relevance of internet and its applications Demonstrate essential skills for creating, editing and printing msword document Apply hands on experience with data analysis and business modelling in ms excel. Use the skill of operating the presentation software
V	Self Study Papers For Advanced Learners	Environmental Valuation	<ol style="list-style-type: none"> Have a holistic understanding of the discipline of environmental valuation Use economic techniques to analyse the changes in health and biodiversity

			<ol style="list-style-type: none"> 3. Explain the linkages between production function and environmental valuation 4. Discuss the Revealed preference models of valuation 5. Outline the benefit transfer and value transfer approach
V	Self Study Papers For Advanced Learners	Legal Aspects of Business	<ol style="list-style-type: none"> 1. Explain essentials of contract, performance and breach of contract under Indian Contract Act 2. Give comprehensive knowledge of Companies Act 3. Illustrate the objectives of Consumer Protection Act and jurisdiction of Consumer Protection Councils 4. Discuss the scope and applicability of Competition Act 5. Create IPR consciousness; and familiarize the learners about the documentation and administrative procedures relating to IPR in India
VI	BE18/6C/IFS	Indian Financial System	<ol style="list-style-type: none"> 1. Discuss the significance of financial system 2. Explain the functions of money market and its instruments with recent financial reforms in India 3. Analyse the functions of the primary market 4. Predict the features and functions of secondary market 5. Outline the significance of the financial services.
VI	BE18/6C/ORD	Operations Research for Decision Making	<ol style="list-style-type: none"> 1. Explain the essence of operations research and decision making 2. Compute linear programming model to obtain optimal solutions 3. Find a feasible solution for transportation and assignment problem 4. Apply the game theory in decision making 5. Identify the strategies of decision making under uncertainty.
VI	BE18/6C/EDT	Economic Development of Tamil Nadu	<ol style="list-style-type: none"> 1. Discuss the profile of Tamil Nadu Economy 2. Explain the contribution of agricultural sector in Tamil Nadu development 3. Predict the role of industrial development in the growth of Tamil Nadu

			<ol style="list-style-type: none"> Analyse the states finance and development programmes Outline the performance of Tamil Nadu
VI	BE18/6E/OLB	Organisational Behaviour	<ol style="list-style-type: none"> Discuss the framework of organizational behavior models. Explain individual behavior in organization Outline the strategies for managing group behavior Apply the leadership theories Use the dynamics of organizational behaviour
ALLIED DEPARTMENTS (common for I B.COM CS, B.COM BM & B.COM A & F)			
I	BE18/1A/MET	Micro Economic Theory	<ol style="list-style-type: none"> Discuss the role of business economics in decision making Explain the consumption and demand analysis Discuss the production analysis Illustrate supply and cost analysis Demonstrate the price and output decisions in various market forms
II	BE18/2A/INE	International Economics	<ol style="list-style-type: none"> Discuss the theories of International trade Compare free trade with protection Explain BOP and BOT Analyse foreign exchange market Examine the role of major international institution in trade and development across the world.
ALLIED DEPARTMENTS (II B.COM, B.COM BM & B.COM HONS)			
III	B.COM GENERAL BE18/3A/MET	Micro Economic Theory	<ol style="list-style-type: none"> Discuss the role of business economics in decision making Explain the consumption and demand analysis Analyse production analysis Demonstrate supply and cost analysis Apply the price and output decisions in various market forms
III	BBM BE18/3A/IEY	Indian Economy	<ol style="list-style-type: none"> Discuss the characteristics of Indian Economy Outline the objectives and strategies of economic planning in India Examine the performance of agricultural sector and food security measures Explain the structure and composition of industrial sector

			5. Predict the contribution of the service sector
IV	B.COM GENERAL BE18/4A/INE	International Economics	<ol style="list-style-type: none"> 1. Discuss theories of International trade 2. Compare free trade with protection 3. Explain BOP and BOT 4. Analyse the foreign exchange market 5. Apply the role of major international institution in trade and development across the world.
IV	BBM BE18/4A/MEC	Monetary Economics	<ol style="list-style-type: none"> 1. Discuss the quantity theory of money 2. Explain the income expenditure approach and saving investment approach 3. Analyse the classical and Keynesian theory of demand 4. Apply the determinants and constituents of money supply 5. Outline on the instruments and role of monetary policy in India



BSC COMPUTER SCIENCE

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	CP18/1C/PIC	Programming In C	<ol style="list-style-type: none"> 1. Apply the basic fundamentals of C programming. 2. Explain various loops and decision making statements to solve the problem. 3. Illustrate the different operations on arrays and use functions concepts to solve the given problem. 4. Use pointers, structures and unions. 5. Analyze file operations in C programming.
I	CP18/1C/PR1	Practical I – C Lab	<ol style="list-style-type: none"> 1. Apply the basic fundamentals of Decision making and looping concepts of C programming. 2. Compute C programs using Arrays 3. Find the different user defined data types to solve the given problem. 4. Prepare C programs using Structures. 5. Use of pointers concepts
I	CP18/IN/FOM	NME – Front Office Management	<ol style="list-style-type: none"> 1. Identify and use the different formats for a document preparation. 2. Apply different mathematical functions and formulas using spreadsheets. 3. Prepare different slides using animation effects.
II	CP18/2C/DSC	Data Structures using C	<ol style="list-style-type: none"> 1. Discuss various array operations, sorting and searching techniques in formulating new solutions to solve the real world problems. 2. Analyze different types of linked list and its operations to meet the user specified software needs. 3. Demonstrate the application of stack operations, evaluation and conversion of expression in designing software procedures based on changing needs. 4. Asses the ability to design, evaluate queue operations and its implementation in multi domain applications. 5. Exposure to development of problem solving applications utilizing the learned concepts of tree and graph data structures.
II	CP18/2C/PR2	Practical II – Data Structures Lab	<ol style="list-style-type: none"> 1. Use the concept of arrays in data structures 2. Evaluate an expression

			3. Learn the concept of Tree Traversal algorithms
II	CP18/2N/MFL	NME – Macromedia Flash	<ol style="list-style-type: none"> 1. Understand the flash concepts. 2. Utilize different graphics for the picture imported or created. 3. Prepare different animation effects.
III	CP18/3C/DBS	Database Management Systems	<ol style="list-style-type: none"> 1. Develop the terminology, features, classifications, and characteristics embodied in database systems 2. Explain the normalization theory and apply such knowledge to the normalization of a database 3. Apply create, populate, maintain, and query statements in the database 4. Demonstrate and manipulating database concepts with various functions. 5. Use the procedural constructs with PL/SQL Statements.
III	CP18/3A/STA	Allied-Statistics	<ol style="list-style-type: none"> 1. Analyze the data with the tally sheet to give perfect outcome and designed to impact knowledge regarding concepts. 2. Develop a strategic approach in organizing data and to understand the relationship between numbers in a data set through calculations. 3. Find the variance, range of a dataset. 4. Examine the past data and use mathematical equations involving data to determine the likelihood of an independent event occurring. 5. Accurate way to determine the probability of a given outcome and make comparisons between the datasets
III	CP18/3C/PR3	Practical III -DBMS Lab	<ol style="list-style-type: none"> 1. Understand the basic term, syntax with database design modulus. 2. Differentiate procedural and non-procedural language 3. Apply the concept of SQL queries
IV	CP18/4C/PYT	Open Source Software-Python	<ol style="list-style-type: none"> 1. Outline the basics of Python programming to design, code, and test small Python programs. 2. Develop Functions in Python 3. Utilize on the conditions, recursion and operators 4. Analyse on the iterations on algorithms and debugging concepts.

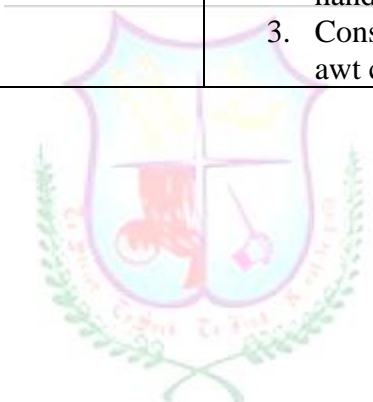
			<ol style="list-style-type: none"> 5. Use the Strings, List, Tuples and dictionaries in Python.
IV	CP18/4A/RMT	Allied-Resource Management Techniques	<ol style="list-style-type: none"> 1. Formulate and solve Linear Programming Problem in different situations like production, distribution of goods and economics that needs decision. 2. Interpret and apply various transportation methods to solve the issues regarding transfer of goods to obtain the maximum profit. 3. Explore the usage and applications of assignment problem to obtain optimal solution for business decision problems. 4. Determine the effectiveness of solving sequencing problem to synchronize with the latest trends and demands from the industry. 5. Construct network diagrams and implement PERT and CPM methods to plan, schedule and control project activities to meet the needs of corporate sector.
IV	CP18/4C/PR4	Practical IV-Python Lab	<ol style="list-style-type: none"> 1. Understand the basic syntax of python concepts. 2. Use the string operations 3. Develop and create small applications using Python programs
V	CP18/5C/ASP	ASP.Net	<ol style="list-style-type: none"> 1. Analyse the basic structure of page, the function and properties of the html and basic web server control. 2. Apply the Function and the properties of data list web server control, validation control 3. Build the objects to work with the data base 4. Develop the techniques to handle the errors and email 5. Design and Develop the Mobile ASP.NET application
V	CP18/5C/SOE	Software Engineering	<ol style="list-style-type: none"> 1. Deploy the social applications 2. Develop and design new software and use them to grow the business with specification techniques. 3. Explain the model and representation of a new system. 4. Guide the implementation tasks, including

			<p>detailed design, coding, integration and Testing.</p> <p>5. Know the Testing techniques with defects finding approach</p>
V	CP18/5C/CAR	Computer Architecture	<ol style="list-style-type: none"> 1. Learn the circuits and the components of the system 2. Analyse the conversion of data into other representation 3. Create the working process of the CPU. 4. Use the concept of pipelining and parallel processing 5. Know the transfer techniques and interfaces
V	CP18/5C/OPS	Operating Systems	<ol style="list-style-type: none"> 1. Outline the structure and functionalities of an OS & the concepts of process. 2. Explain different problems related to process synchronization and deadlock. 3. Describe the concept of paging and segmentation for memory management. 4. Apply different Page replacement algorithm. 5. Analyze different aspects of Linux.
V	CP18/5E/DMW	Elective -I :Data Mining and Data Warehousing OR	<ol style="list-style-type: none"> 1. Design data warehousing with multidimensional data modeling and apply OLAP operations to devise efficient cost effective methods for maintaining data warehouse. 2. Analyze a wide range of emerging newly adopted methodologies and technologies to facilitate the knowledge discovery. 3. Characterize the kinds of patterns that can be discovered by association rule and applying proper data mining algorithms to build analytical application. 4. Demonstrate application of various Clustering algorithms to benefit the user experiences towards research and innovation integration. 5. Evaluate different mining techniques in various applications like social, scientific and environmental context.
	CP18/5E/ARI	Elective -I:Artificial Intelligence OR	<ol style="list-style-type: none"> 1. Learn about the artificial intelligence problem and the characteristics of the problem space 2. Demonstrate the fundamentals of heuristic search techniques and reasoning for

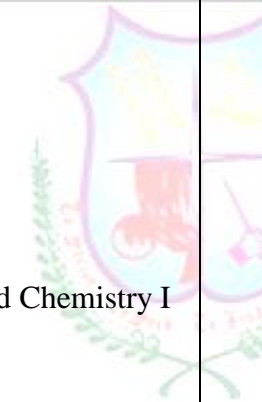
			<p>problem solving</p> <ol style="list-style-type: none"> 3. Compute the learning using Predicate Logic and Prolog Programming 4. Analyse the concepts of artificial neural networks and how to train the network. 5. Apply the knowledge of artificial intelligence in designing applications
	CP18/5C/INS	Elective – I:Information Security	<ol style="list-style-type: none"> 1. Identify the importance of the Information Security and their Principles 2. Apply the principles of Information Security in various real time applications and utilise the different policies, taxonomy, models and the criteria to secure information. 3. Discuss the different cybercrimes and protect information using the law, ethics, standards and criteria. 4. Utilise the physical security controls, principles and operations to protect data from physical threats. 5. Illustrate cryptography technique to secure information and apply different current methodologies to protect data from unauthorised person.
V	CP18/5C/PR5	Practical V- ASP.NET Lab	<ol style="list-style-type: none"> 1. Develop the software using various programming technologies 2. Evaluate user requirements for software functionality required to decide whether the language can meet user requirements 3. Choose an engineering approach to solving problems, starting from the acquired knowledge of programming and knowledge of operating systems.
VI	CP18/6C/JAV	Java Programming	<ol style="list-style-type: none"> 1. Write, compile, and execute Java programs that may include basic data types and control flow constructs 2. Learn the concept of oops principles and its usage 3. Understand importance of Multi-threading & different exception handling mechanisms. 4. Use the concepts of handling String and String Buffer functions 5. Experience of designing, implementing, testing, and debugging graphical user interfaces in Java using applet and AWT

			that respond to different user events
VI	CP18/6C/DCN	Data Communications Networking	<ol style="list-style-type: none"> 1. Impart knowledge in basics of data networking and the layers of OSI model 2. Introduce different types of transmission media to connect the computers in various departments to and concepts of switching used for data communication 3. Understand the functions of data link layer to ensure that the data has been transmitted across the layers error free. 4. Analyse various routing protocols to determine optimal network data transfer paths between network nodes with good quality of service. 5. Build an understanding about functions of transport layer and the concept on how information is transmitted fast and secure across various systems.
VI	CP18/6E/CCP	Elective II-Cloud Computing Or	<ol style="list-style-type: none"> 1. Know the platforms of Iaas, Saas and Paas. 2. Give the identity as service, providing the effectiveness in collaboration and understand the server as a resource. 3. Use the security for all social applications. 4. Apply the different Architectural procedures as a service. 5. Illustrate the mobile application in recent Technologies.
VI	CP18/6E/BDA	Elective II- Big Data Analytics OR	<ol style="list-style-type: none"> 1. Outline to provide an overview of an exciting growing field of big data analytics. 2. Identify the hype around big data and its classifications. 3. Use the tools required to manage and analyze big data like Hadoop. 4. Apply the tools required to manage and analyze big data like mapreduce. 5. Discuss to integrate machine learning libraries and mathematical and statistical tools with modern technologies like hadoop and mapreduce.
VI	CP18/6E/IOT	Elective II-Internet of Things	<ol style="list-style-type: none"> 1. Learn the architectural diagram of IOT framework 2. Understand how data is acquired, organized 3. Use cloud services they will be able to create own data centers

			<ol style="list-style-type: none"> Analyse the security in the networks Create and relate IOT applications.
VI	CP18/6C/MNP	Mini Project	<ol style="list-style-type: none"> Use the basic knowledge of programming skills. Acquire the skills to communicate effectively and to present ideas clearly and coherently to specific audience in both the written and oral forms. Prepare to learn on their own, and reflect on their learning to take appropriate actions to improve Analyse, identify, design and develop a project to enhance the existing problem within the scope of their study.
VI	CP18/6C/PR6	Practical VI- Java Programming Lab	<ol style="list-style-type: none"> Apply the basic fundamentals of Decision making and looping concepts of Java programming. Compute Java programs using String handline functions Construct GUI based applications using awt controls.



BSC BIOCHEMISTRY

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	BC18/1C/CBL	Core Cell Biology	<ol style="list-style-type: none"> 1. Distinguish between prokaryotes and eukaryotes and understand the biological actions carried out by organelles 2. Apply the knowledge to link the structure and functions of different components in the envelope system 3. Relate and apply the concept to solute transport and Immunological processes. 4. Predict the nature and mechanism of cell differentiation to various activities. 5. Reason and think about how cells divide and die in daily life process.
I	BC18/1A/CH1	 Allied Chemistry I	<ol style="list-style-type: none"> 1. Gain knowledge on the types of bonds, understand VB and MO theories. Learn the concept of intermolecular forces. 2. Deduce the shape of different polyatomic molecules. Able to describe the mechanism of electrophilic and nucleophilic substitution reactions. 3. Learn how to apply rules in addition and elimination reactions. Able to classify the electrolytes 4. Differentiate conductors and insulators. Familiarize with the laws of electricity. Able to explain qualitatively the difference in behavior between strong and weak acids and bases and the pH values of their aqueous solution 5. Familiarize with term molarity, molality normality and formality and indicators. Based on law of mass action to arrive at the amount of substance in a unknown solution.
II	BC18/2C/BMO	Core – Biomolecules	<ol style="list-style-type: none"> 1. Relate the role of sugars in energy production and living systems 2. Apply the link between the structure and functions of proteins in biological context 3. Demonstrate the role of lipids and apply the techniques to identify their purity 4. Relate the structure of lipids with their reactivity in biological membrane systems and life processes.

			5. Design the structural studies to the biological processes like replication, transcription and translation
II	BC18/2A/CH2	Allied Chemistry – II	<ol style="list-style-type: none"> 1. Illustrate the different co-ordinate compounds. Familiarize with the application of chelates in biological system and thereby their application in the field of medicine. 2. Apply the usage of fuel gas and dyes in daily life. Able to describe the mode of action of different drugs. 3. Causes and effects of Food adulteration and awareness to select Wholesome and non adulterated food. 4. Develop knowledge on the relation between the structure and properties of compounds. 5. Various methods used to separate mixture of compounds and identify their compounds.
II	BC18/2C/CP1	Core Practical I	<ol style="list-style-type: none"> 1. Develop skills of microscopic examination of various types of cells. 2. Apply the analytic skills to identify the major sugars. 3. Use the analytic skills of amino acids. 4. Acquire the knowledge of preparation of compounds from samples.
II	BC18/2A/CHP	Allied Chemistry Practical	<ol style="list-style-type: none"> 1. Able to arrive at a overall identification of the substance under investigation. 2. Prepare a systematic report on the analysis and submit 3. Gain hands on knowledge on the analysis of organic substances
III	BC18/3C/BBT	Core- Biophysical & Biochemical techniques	<ol style="list-style-type: none"> 1. Acquire and follow the safe lab practices and handling various balances, knowledge of colloids from physical and chemical perspectives, interfacial phenomenon in which central themes are surface tension, viscosity and osmotic pressure. 2. Apply various chromatographic techniques and radioisotopes and gain knowledge of electromagnetic radiation and apply them practically 3. Use appropriate electrophoretic methods in separation of biomolecules and the

			<p>properties of buffers and measurement of pH by glass electrode.</p> <ol style="list-style-type: none"> Acquire knowledge about centrifugations, types and its applications. Appreciate the principle, instrumentation and the difference between various spectroscopic methods to choose analyzing biological samples.
IV	BC18/4C/ENZ	Core-Enzymes	 <ol style="list-style-type: none"> Discuss concepts of activation energy and cellular reactions to occur by a biocatalyst. Ever increasing number of newly discovered enzymes, a system for naming and classifying enzymes must be known and also the role of coenzymes in enzyme catalyzed reaction. Comprehend the role of enzyme substrate complex formation and types of models and enzyme specificity. Apply the kinetics of enzyme such as MM equation, LB plot and Eadie Einstein mechanisms in various field of enzyme technology. Examine the techniques of enzyme extraction from various tissues and Isolation, intracellular localization of enzymes, marker enzymes an intensive research on the enzymes catalyzing the reactions of cell metabolism. Use purification techniques of enzymes, properties of multienzyme complex and designer enzymes as important practical tools in medicine, food processing, and chemical industry and in agriculture.
IV	BC18/4C/CP2	Core Practical II	<ol style="list-style-type: none"> Develop of practical skill on redox reaction experiments Prepare various buffer solutions Apply the chromatographic skills to separate amino acids, DNA and plant pigments Acquire the knowledge on colorimetric estimations
V	BC18/5C/IM1	Core -Intermediary Metabolism-I	<ol style="list-style-type: none"> Gain knowledge about various types of metabolism and pathways of carbohydrates by which nutrient molecules are degraded and hence energy production. Explain how cells survive and proliferate

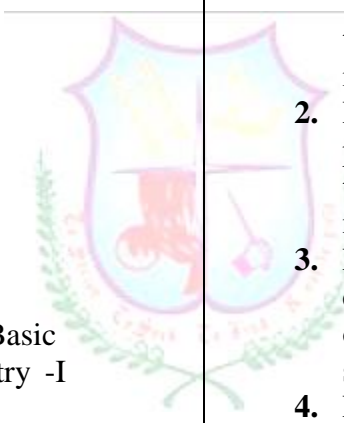
			<p>by synthesis and degradation of glycogen and serve as a buffer for glucose ,HMP shunt for replenishing NADPH and ribose</p> <ol style="list-style-type: none"> 3. Outline the various types of aminoacid degradation and its excretory product. 4. Gain insights in to the importance of aminoacid biosynthesis and degradation of specific glucogenic and ketogenicaminoacids. 5. Apply the knowledge of specialized product synthesis from aminoacid, its functions in living system and mechanism of detoxification in diagnosis of various inherited disorders.
V	BC18/5C/IM2	Core -Intermediary Metabolism-II	<ol style="list-style-type: none"> 1. Appreciate the metabolic basics of diseases when lipid pathway is disturbed 2. Gain new insights in to the important lipids and their metabolism, clinical and therapeutic aspects 3. Apply the knowledge of nucleic acid metabolic pathway for Cancer research 4. Compute the pathways and mechanism of energy generation 5. Link the concept of photosynthesis with agricultural production
V	BC18/5C/CBC	Core–Clinical Biochemistry	<ol style="list-style-type: none"> 1. Utilize the knowledge in selecting different biological specimen, its collection and preservation in disease diagnosis; also analyze the hematological parameters in identification of blood disorders. 2. Explain the metabolic disorders of carbohydrate, amino acid and the inherited disorders associated with it. 3. Discuss and explain the metabolic disturbances and inherited disorders associated with lipid and nucleic acid metabolism 4. Apply the knowledge of diagnostic procedures to determine the gastric and the renal function 5. Examine liver disorders and apply the knowledge of diagnostic procedures to determine liver function and outline on marker enzyme of vital organ in disease diagnosis.
V	BC18/5C/PHY	Core –	<ol style="list-style-type: none"> 1. Recognize and analyze blood cells and

		Physiology	<p>blood groups Blood clotting mechanism</p> <ol style="list-style-type: none"> Outline the muscular and nervous system, Mechanism of muscle contraction and structure of brain and spinal cord Utilise the knowledge about the structure kidney and nephron ,to understand the mechanism of Urine formation and learn the concept of Dialysis, Acquire knowledge about the components of Digestive system, Hcl formation and Digestion process Compile the classification of Hormones and its biological role
V	BC18/5E/BBS BC18/5E1/HSM BC18/5E2/BIE	Elective Bioinstrumentation & Biostatistics	<ol style="list-style-type: none"> Analyze the common clinical testings & assays Discuss about various diagnostic procedures Explain the use of life support devices and understand the therapeutic procedures. Analyse the Basics of Statistics, Present Datas Solve problems involving common statistical parameters
		Hospital Management	<ol style="list-style-type: none"> Analyze the importance and role of various departments , support services in hospitals Discuss about information system in hospitals and Quality assurance Communicate about Ethics governing various clinical aspects like blood transfusion, transplantation Aware of various legal and safety aspects in hospital administration Illustrate counselling and analyze the role of counsellors in Hospital management
		Bioethics	<ol style="list-style-type: none"> Apply ethics, realise rights and responsibilities in society Be ethical in biomedical research Follow standard guidelines in laboratory and clinical trials Use ethical practices in biomedicine Identify intellectual property in research and apply for patents
V		Self Learning Papers Clinical Endocrinology	<ol style="list-style-type: none"> Apply the knowledge in integration of body system by endocrines Analyse the integration of thyroid hormones with metabolism and

			<p>parathyroid hormones with calcium metabolism.</p> <ol style="list-style-type: none"> 3. Link the relationship between adrenal hormones with, neurotransmission, mineral and energy metabolism 4. Discuss the link between pancreatic and gastro intestinal hormones with diseases 5. Create awareness on gonadal systems and measures to prevent the reproductive disorders
		Health For Women	<ol style="list-style-type: none"> 1. Apply the knowledge to understand the physiology of female reproductive system 2. Acquire the knowledge on pregnancy and create awareness on child care 3. Create Awareness on pregnancy complications and sexually transmitted diseases 4. Develop Awareness on health and life style related disorders 5. Explain the awareness on importance of diet in different stages of women
VI	BC18/6C/MBO	Core -Molecular Biology	<ol style="list-style-type: none"> 1. Gain knowledge about the organization of genes to chromosomes in prokaryotes and eukaryotes, types of DNA sequences, complexity of DNA sequences determined by renaturation kinetics. 2. Apply the concept gained in mechanism of replication in the field of molecular biology. 3. Know knowledge about different types of RNA and its synthesis leads to understanding protein synthesis and development. 4. Use the knowledge of protein synthesis to create polypeptide for drug development against genetic disorders. 5. Familiar and able to link the concept with mutation and repair system.
VI	BC18/6C/GNB	Core – Genetics & Nutritional Biochemistry	<ol style="list-style-type: none"> 1. Know about the Mendel's experiments in Genetics and understanding its concept 2. Explore facts about the Genetic disorders and to relate it. 3. Analyse the role of various nutrients, their dietary allowances and relate in day to day life. 4. Revise the Knowledge about the water and

			<p>fat soluble vitamins and its significance and its functions</p> <p>5. Outline the Knowledge about Obesity and obtaining better results.</p>
VI	BC18/6C/BTY	Core-Biotechnology	<ol style="list-style-type: none"> 1. Outline the fundamental steps in genetic engineering procedures and discuss the various tools of recombinant DNA technology 2. Discuss the technique used to isolate specific gene of interest, explain various gene transfer method and selection procedure for identifying transformants 3. Identify various natural and artificial ways to propagate plants to increase genetic variety and genetic composition 4. Outline the fundamentals of various types of animal cell cultures. Discuss the role of biotechnology in the health care sector 5. Explain and discuss the various steps involved in large scale production and harvesting of genetically engineered protein. Discuss the role of biotechnology in various industrial sectors
VI	BC18/6E/BBI BC18/6E1/EET BC18/6E2/PBC	Basics Of Bioinformatics	<ol style="list-style-type: none"> 1. Explain the basics of Internet communication 2. Discuss about the use of Bioinformatics and Database 3. Align sequences, Utilize sequence aligning tools, predict genes. 4. Discuss about protein structural organization, predict protein Structure and utilize structure prediction & visualization tools 5. Explain about Phylogenetic analysis and discuss about Drug designing.
		Immunology	<ol style="list-style-type: none"> 1. Apply and practice the methods to improve immunity 2. Appreciate and analyse the integration of immune cells and organs 3. Use the knowledge on the production of vaccines and immune kits. 4. Analyse and diagnose the various immune disorders. 5. Preventive measures for allergy and other hypersensitivity reactions

		Ecology And Environmental Toxicology	<ol style="list-style-type: none"> 1. Utilize the knowledge in understanding the ecosystem 2. Discuss and explain the interaction between various ecosystem and impact of natural disturbances on ecosystem 3. Explain the harmful effects of radioactive pollutants and their waste 4. Apply the knowledge in executing preventive measures on understanding toxic metals , oraganic and inorganic pollutants into environment 5. Analyse the knowledge in the disposal of waste by various bioremediation methods
VI	BC18/6C/CP3	Core practical- III	<ol style="list-style-type: none"> 1. Estimate the biomolecules,trace elements and vitamins using colorimetry 2. Demonstrate students to know about the counting of blood cells and Hamoglobin estimation which rises in pathological condition 3. Impact the students to learn and train the isolation techniques of compounds from various samples.
VI	BC18/6C/CP4	Core practical- IV	<ol style="list-style-type: none"> 1. Estimate the nucleic acid and biomolecules using colorimetry 2. Determine the specific activity of marker enzymes and salivary enzyme 3. Analyse and report the normal and abnormal compounds of urine
ALLIED PAPERS OFFERED FOR I B. SC MICROBIOLOGY			
I	BC18/1A/AB1	Allied Biochemistry – I	<ol style="list-style-type: none"> 1. Utilise the importance of Carbohydrates in life 2. Assess the types of Carbohydrates in detail. Exploring the application of Sucrose day to day life 3. Apply the knowledge about various metabolic activities occurring in our body. 4. Compile the various aminoacids and applying the knowledge about the essential and semi essential amino acids 5. Identify the Primary, Secondary and Tertiary types of Proteins.
II	BC18/2A/AB2	Allied Biochemistry – II	<ol style="list-style-type: none"> 1. Compute the various types of enzymes and the factors affecting its activity and apply them practically 2. Utilize knowledge about the importance

			<p>of Lipids and its classification. Knowing the various properties of lipids</p> <ol style="list-style-type: none"> 3. Demonstrate the composition of Nucleic acid and Watson and crick model of DNA 4. Learn the various properties of DNA and the various types of RNA and its composition 5. Outline the types of Hormones, its classification and effects of hormones in our body.
I & II	BC18/2A/ABR	Allied Biochemistry Practical	<ol style="list-style-type: none"> 1. Able to identify the Carbohydrates and aminoacids 2. Apply the facts of biochemical instrumentation in practically
ALLIED PAPERS OFFERED FOR I B. Sc CLINICAL NUTRITION AND DIETETICS			
I	BC18/1A/BC1	Allied Basic Chemistry -I	 <ol style="list-style-type: none"> 1. Gain knowledge on the types of bonds; understand VB and MO theories Understand the concept of intermolecular forces. 2. Deduce the shape of different polyatomic molecules. Able to describe the mechanism of electrophilic and nucleophilic substitution reactions. 3. Learn how to apply rules in addition and elimination reactions. Causes and effects of Food adulteration and awareness to select and non adulterated food. 4. Explain qualitatively the difference in behavior between strong and weak acids and bases and the pH values of their aqueous solution 5. Apply the uses of buffer. To familiarize with term molarity, molality normality and formality and indicators. Based on law of mass action to arrive at the amount of substance in a unknown solution.
II	BC18/2A/BC2	Allied Basic Chemistry –II	<ol style="list-style-type: none"> 1. Able to name different co-ordinate compounds. 2. Familiarize with the application of chelates in biological system and thereby their application in the field of medicine. 3. Apply the usage of fuel gas and dyes in daily life.

			<ol style="list-style-type: none"> Describe the mode of action of different drugs. Analyse purpose of additives and to know their limits. Develop extraction knowledge on the relation between the structure and properties of compounds. Various methods used to separate mixture of compounds and identify their compounds.
NME (1c) SUBJECT FOR OTHER DEPARTMENTS			
II	BC18/1N/YO D	Yoga and Diet For Health	<ol style="list-style-type: none"> Acquire knowledge about the various types of Yoga and how carrying out yoga in day to day life to attain self control and peace Explore the various asanas and acquiring their benefits Learn the classes of Nutrients and applying it to have a balanced diet ,there by having benefitted
III	BC18/2N/LD W	Life Style Diseases In Women	<ol style="list-style-type: none"> Know the health problems faced by women and the methods of diagnosis and treatment Explore the healthy food habits by knowing the balanced diet and acquiring benefits by applying it Learn the various eating disorders and exploring the knowledge about smoking and alcoholism and its adverse effects.

BSC MICRO BIOLOGY

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	MB18/1C/FM1	Fundamentals of Microbiology-I	<ol style="list-style-type: none"> 1. Understand the developments in Microbiology and list the contributions of various scientists. 2. Illustrate the structure and function of Eukaryotic and Prokaryotic cells. 3. Utilize the principles and applications of different types of Microscope. 4. Apply various staining procedures for visualising microorganisms under the microscope. 5. Assess the implication of various sterilisation procedures and bio safety measures in clinical labs and industries.
I	MB18/2C/PR1	Basic Techniques in Microbiology	<ol style="list-style-type: none"> 1. Apply the concept of microscopy to visualize microorganisms and methods of sterilization. 2. Utilize the methodology and application of different staining techniques. 3. Evaluate different cultivation methods of microorganism and its importance.
II	MB18/2C/FM2	Fundamentals of Microbiology-II	<ol style="list-style-type: none"> 1. Analyse the nutritional requirement of microorganisms and their cultivation techniques under laboratory conditions. 2. Utilize microbial growth, its measurement and preservation techniques in different disciplines. 3. Assess various metabolic pathways occurring in microorganisms and their significance. 4. Explain the stages in microbial photosynthesis and its significance. 5. Acquire knowledge about antibiotics, their classification and mode of action.
III	MB18/3C/BAI	Basic and Applied Immunology	<ol style="list-style-type: none"> 1. Acquire in depth knowledge about cells and organs of immune system 2. Appraise the concepts and factors influencing immunity and vaccination. 3. Elucidate the reactions between various antigens and antibodies that form the basic platform for host

			<p>parasite interactions.</p> <ol style="list-style-type: none"> Analyze graft rejection in transplantation by learning the MHC molecules and their functions. Illustrate assess hypersensitivity and autoimmune disorders.
III	MB18/3A/BIT	Allied-Bioinstrumentation	<ol style="list-style-type: none"> Acquire theoretical knowledge about basic Laboratory equipment's. Use the principles and applications of centrifugation and electrophoretic methods in laboratory. Demonstrate the use of spectroscopic techniques. Attain knowledge to use chromatographic techniques in research. Apply Biosensors and Radioisotopic analysis in research.
IV	MB18/4C/PR2	Basic and Applied Immunology	<ol style="list-style-type: none"> Apply the information on DNA and RNA structure in molecular biology. Discuss the knowledge in prokaryotic replication and its types. Use gene regulatory and expression mechanisms for research. Evaluate the importance of mutation and repair mechanisms. Analyze gene transfer and recombination methods for betterment of society.
IV	MB18/4A/PR1	Bioinstrumentation, Computers and Biostatistics	<ol style="list-style-type: none"> Acquire information about basics of biostatistics and its application in research. Apply measures of central tendency and dispersion in biological analysis. Use hypothesis testing methods to solve research problems. Understand working of computers. Utilize computers in statistical calculations and documentation.
IV	MB18/4C/PR2	Basic and Applied Immunology	<ol style="list-style-type: none"> Analyse the morphology and total count of blood cells by complete blood count test. Appraise and detect various diseases by agglutination and precipitation reactions. Confirm the presence of infection by

			WIDAL and ELISA tests
IV	MB18/4A/PR1	Bioinstrumentation, Computers and Biostatistics	<ol style="list-style-type: none"> 1. Acquire knowledge on working principle of laboratory instruments. 2. Utilize measures of central tendency and dispersion to solve statistical problems. 3. Appreciate operation of computer and its application in research.
V	MB18/5C/BAC	Bacteriology	<ol style="list-style-type: none"> 1. Analyse the structure and factors contributing to pathogenicity of bacteria and acquire the skills of sample collection and processing for precise bacterial identification. 2. Identify the appropriate cultivation and diagnostic techniques of Gram positive bacterial diseases and preventing them through immuno and chemoprophylaxis. 3. Isolate and diagnose Gram negative bacteria of human importance affecting different organ systems with the therapeutic interventions to contain them. 4. Assess the role of spiral and non-cultivable bacteria in disease production and identifying them through modern molecular and immunological methods 5. Devise appropriate control measures and biosafety precautions in tackling zoonotic infections
V	MB18/5C/SAM	Soil and Agricultural Microbiology	<ol style="list-style-type: none"> 1. Perceive the contribution and activity of soil microbes in enhancing soil fertility. 2. Critically analyse the beneficial effects resulting from microbial interactions in soil. 3. Appraise the crucial events involved in microbe-mediated transformation of elements in the ecosystem. 4. Examine the mode of survival of pathogens on plants and assess its impact on crop production. 5. Accredite the economic usage of beneficial soil microbes for better plant growth and yield.

V	MB18/5C/MPL	Medical Parasitology	<ol style="list-style-type: none"> 1. Perceive the contribution and activity of soil microbes in enhancing soil fertility. 2. Critically analyse the beneficial effects resulting from microbial interactions in soil. 3. Appraise the crucial events involved in microbe-mediated transformation of elements in the ecosystem. 4. Examine the mode of survival of pathogens on plants and assess its impact on crop production. 5. Accredited the economic usage of beneficial soil microbes for better plant growth and yield.
V	MB18/5E/FMB or	Food Microbiology/	<ol style="list-style-type: none"> 1. Determine the role of microorganisms in spoilage and food preservation techniques. 2. Analyse the contamination of foods, detect food pathogens based on physical, chemical and immunological methods and choose appropriate preservative techniques. 3. Examine and identify the role of pathogens in food borne infections and food poisoning and prevent food borne outbreaks. 4. Use quality control tests and apply the knowledge of fermented food products. 5. Implement SOP in food industries.
V	MB18/5E/FPT	Food Processing Technology	<ol style="list-style-type: none"> 1. Determine the role of microorganisms in food industries, preservation techniques, and spoilage of food. 2. Analyse the contamination of foods, detect food pathogens and importance of packaging material. 3. Assess the techniques in checking milk quality, fermentation of milk and to perform production of fermented milk foods on a large scale level. 4. Acquire skills on extraction and toxicity of oil from food. 5. Examine and identify the role of pathogens in food borne infections and food poisoning. Implement hygiene

			practice and sanitation. Food laws and standards for good quality in food production.
V	MB18/5E/BIO or	Biotechnology /	<ol style="list-style-type: none"> 1. Demonstrate the historic milestones in Biotechnology, legal implications and ethics involved in Biotechnology Research. 2. Explain Plant Tissue Culture protocols and gene transfer mechanism. 3. Use Animal cell culture methods for maintenance of various cell lines. 4. Examine cloning protocol in rDNA technology. 5. Discuss the molecular methods and the various vectors used in them.
V	MB18/5E/GEG	Genetic Engineering	<ol style="list-style-type: none"> 1. Elucidate the methods of DNA isolation and understand the concepts of restriction and ligation of DNA. 2. Critically analyse the structure and employment of cloning vectors in gene cloning experiments. 3. Illustrate the steps involved in introduction of DNA into bacteria, animal and plants cells and their screening. 4. Assess the usage and advantages of molecular tools employed in gene cloning. 5. Analyse the application of gene cloning in medicine and agriculture.
V	Self-Study paper	Forensic Science and Crime Investigation*	<ol style="list-style-type: none"> 1. Familiarize oneself with developments and organizations in forensic science. 2. Acquire knowledge on types of Crime and its causes as well prevention. 3. List the services performed by a Crime investigator, Crime laboratories and Medical examiners. 4. Analyse the role of a forensic scientist in Crime scene investigations. 5. Gather information on Forensic toxicology and ethics in Forensic science.
VI	MB18/6C/MML	Medical Mycology	<ol style="list-style-type: none"> 1. Explain classification of medically important fungi. 2. Examine the significance of fungi affecting superficial and subcutaneous

			<p>tissues.</p> <ol style="list-style-type: none"> 3. Analyse the role of systemic mycoses in clinical disease and perceiving the knowledge in diagnosing and treating infections. 4. Evaluate the importance of opportunistic fungi and the methods to combat their infections by diagnosis and treatment. 5. Apply diagnostic methods in mycotic infections.
VI	MB18/6C/ENM	Environmental Microbiology	<ol style="list-style-type: none"> 1. Illustrate the distribution of air microflora and their impact on air quality. 2. Identify the diverse microflora of water and assess their significance in water treatment, water pollution and water quality. 3. Appraise the microbial processes involved in the treatment of sewage and solid wastes. 4. Assess the utility of microbes in biofuel production, biodegradation and bioleaching of ores. 5. Examine the microbial deterioration of natural products.
VI	MB18/6C/VIR	Virology	<ol style="list-style-type: none"> 1. Explain structure, genome replication and expression of viruses. 2. Assess the pathogenesis of DNA viruses with their therapeutic possibilities of the present and future. 3. Apply the information on pathogenesis, diagnosis for the treatment of RNA viruses. 4. Evaluate the impact of arthropods on public health and emphasise on vector borne diseases prevention and control. 5. Acquire skills on various diagnostics and therapeutic measures for viral diseases.
VI	MB18/6E/INM or	Industrial Microbiology/	<ol style="list-style-type: none"> 1. Analyse various concepts in Industrial Microbiology and process. 2. Gain Knowledge on Strain development strategies and industrial types of fermentation formulation of media. 3. Acquire insight on design, construction and types of Fermenter. 4. Identify the stages in industrial

			<p>Downstream Process and effluent treatment.</p> <p>5. Discuss industrial production of microbial metabolites.</p>
VI	MB18/6E/MFT	Microbial Fermentation Technology	<p>1. Analyse various concepts in types of fermentation process</p> <p>2. Gain Knowledge on strain improvement strategies and growth kinetics</p> <p>3. Acquire insight on design, construction and types of Fermenter</p> <p>4. Identify the stages in industrial Downstream Process and effluent treatment</p> <p>5. Apply the information for production of microbial metabolites</p>
VI	MB18/6C/PR3	Medical Microbiology	<p>1. Acquire practical skills in the design and execution of experiments to identify bacteria from clinical samples.</p> <p>2. Evaluate various analytical methods to cultivate and assess the virus samples.</p> <p>3. Demonstrate various methods for isolation, detection and identification of fungus and parasites from clinical samples.</p>
VI	MB18/6C/PR4	Applied Microbiology	<p>1. Master the techniques on isolation and identification of microorganisms on spoiled foods.</p> <p>2. Apply practical knowledge to isolate bacteria present in milk and its products and studying both beneficial and harmful effects.</p> <p>3. Imbibe the practical skills for isolation of <i>Rhizobium</i> from leguminous plants and its efficacy in plant growth.</p>
III	MB18/3A/AM1	Allied Microbiology-I	<p>1. Outline landmark events in the History of microbiology and to classify Microorganisms into taxonomic groups.</p> <p>2. Describe the structural make up and functional details of a Bacteria.</p> <p>3. Compile various staining and cultivation techniques.</p> <p>4. Expose to techniques for obtaining pure cultures of microorganisms and knowledge on methods of measuring microbial growth.</p> <p>5. Get acquainted with sterilization and</p>

			preservation techniques.
IV	MB18/4A/AM2	Allied Microbiology-II	<ol style="list-style-type: none"> 1. Focus on Microbial spoilage, preservation, testing and production of food products. 2. Explain types of soil microbes with their role in the various Bio Geo cycles and their applications. 3. Discuss the different sources of water , their purification methods and threats of water borne diseases. 4. Explain the composition of air, its quality with remedial sanitary measures to combat air borne diseases. 5. Get insights on industrial production of human utility products and regulatory bodies of Environmental pollution.
IV	MB18/4A/PR2	Allied Microbiology Practical	<ol style="list-style-type: none"> 1. Imbibe complete knowledge on basic techniques in Microbiology 2. Apply staining and culturing techniques for identification of microorganisms. 3. Analyse the structure of Bacteria, Fungi and Algae microscopically
I	MB18/1N/PCH	Pet Care and Hygiene	<ol style="list-style-type: none"> 1. Utilize the knowledge on grooming, nutrition and the various ailments encountered by a pet animal. 2. Use the techniques learnt to train the pets for appropriate behaviours. 3. Follow immunization schedule, apply first aid and practice ethics in pet care.
II	MB18/2N/GAL	Gardening and Landscaping	<ol style="list-style-type: none"> 1. Acquire knowledge on fundamentals of gardening and seed propagation. 2. Apply Lawn making techniques in landscaping. 3. Utilize different landscaping techniques in creating various types of gardens.

BSC PSYCHOLOGY

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	PS18/1C/BP1	Basic Psychology-I	<ol style="list-style-type: none"> 1. Acquire knowledge on the history, methods and special areas in the field of psychology 2. Explain sensory systems through which information processing happens 3. Relate the process of attention to perception and infer how we make sense of the world around us 4. Gain insight into complex emotional experiences of human being and analyze the experience of self in day to day life 5. Summarize and point out factors that drive human behaviour
I	PS18/1C/CHP	Psychology of Childhood	<ol style="list-style-type: none"> 1. Describe the course of development of human and the influence of genetic and environmental factors on human life. 2. Explain the significance of development in various domains 3. Examine the influence of attachment styles and social contexts in the process of development 4. Compare and contrast healthy and unhealthy family environments on the developing child , relate it to real life situations and utilize this knowledge for fostering healthy environment 5. Infer the outcomes of development influenced by other environmental factors and plan strategies to create positive environment
I	PS18/1A/BI1	Biological Psychology – I	<ol style="list-style-type: none"> 1. Describe recent research methods and perspectives on the emerging field of behavioural neuroscience 2. Understand anatomy and functions of the basic cell of the nervous system 3. Explain the process of communication between neurons 4. Describe the complex orchestrated functioning of the nervous system 5. Understand the function of endocrine glands and relate the knowledge to understanding various human behaviour
II	PS18/2C/BP2	Basic Psychology-II	<ol style="list-style-type: none"> 1. Critically examine the process of

			<p>learning</p> <ol style="list-style-type: none"> 2. Understand and apply the process of encoding ,storing and retrieval of information 3. Describe the process of thinking, reasoning and applying the principles in problem solving and infer the role of language in thinking 4. Examine components of intelligence and understand the role of technology in simulating human intelligence 5. Critically analyze approaches to the study of personality and its measurement
II	PS18/2C/AAP	Psychology of Adolescence and Early Adulthood	<ol style="list-style-type: none"> 1. List and describe critical biological changes during adolescence 2. Explore the influence of structured learning environments on cognitive functioning 3. Analyze the role of psychosocial factors on the developing self 4. Evaluate and differentiate changes in development with respect to physical ,cognitive and sexual self from early stages of development and its implications for everyday life 5. Understand and devise ways to initiate and sustain positive interpersonal relationships
II	PS18/2A/B12	Biological Psychology – II	<ol style="list-style-type: none"> 1. Describe the physiological basis of sleep and dream 2. Explain the physiological mechanisms underlying basic needs 3. Examine the role of central and peripheral nervous system in the experience of emotions 4. Develop the biological basis of learning and memory 5. Explore the difference in functions of the right and left hemisphere and list brain areas that are involved in speech functions.
III	PS18/3C/EXP	Experimental Psychology	<ol style="list-style-type: none"> 1. Experiment with testing human capacities such as perception, attention, learning and memory. 2. Relate the acquired knowledge of psychological processes to the method

			<p>employed in testing.</p> <ol style="list-style-type: none"> 3. Demonstrate understanding of how psychological processes can be established objectively. 4. Make observation, interpret and use the data obtained from measurement to analyze individual differences in human capacities
III	PS18/3C/MLP	Psychology of Middle and Late Adulthood	<ol style="list-style-type: none"> 1. Explain the nature of middle age in all significant domains of development 2. Analyze the changing nature of self in relation to others in middle adulthood 3. Summarize the physical, cognitive and social functioning in old age 4. Sketch the changing nature of self in relation to others in late adulthood 5. Evaluate the experience of aging, death and Dying in different cultural contexts
III	PS18/3A/ST1	Statistics for Psychology - I	<ol style="list-style-type: none"> 1. List the need and importance of statistics in psychology 2. Draw and make charts for easy analysis and interpretation of data 3. Organize and categorize data 4. Select and use relevant computational procedures for describing data 5. Apply appropriate statistical techniques for data analysis and interpretation.
IV	PS18/4C/FRM	Fundamentals of Research Methodology	<ol style="list-style-type: none"> 1. Explain the fundamental research concepts 2. Examine and develop a feasible research question and generate hypothesis 3. Select appropriate sampling techniques for choosing participants for the research study. 4. Explain and use appropriate methods to collect data 5. Produce scientific report of the obtained research results
IV	PS18/4C/SP1	Social Psychology – I	<ol style="list-style-type: none"> 1. Understand human behaviour in social setting 2. Compare and contrast the reasons for difference in behaviours of individuals in the presence of others 3. Infer and predict causal factors for social behaviour and thought 4. Examine the sources of prejudice and

			<p>devising ways to reduce it</p> <p>5. Analyze reasons for being with and deviating from the group</p>
IV	PS18/4A/ST2	Statistics for Psychology- II	<ol style="list-style-type: none"> 1. Comprehend basic ideas about making conclusions about population from data collected from samples 2. Develop skills to generate hypothesis depending on the nature of the research Question 3. Understand the process involved in testing the population mean from sample mean and infer appropriately 4. Compare the populations with respect to variable under study to evaluate whether statistical significant difference indicate real difference 5. Gain knowledge on non-normal distributions and statistics associated with it
V	PS18/5C/AB1	Abnormal Psychology I	<ol style="list-style-type: none"> 1. Understand abnormal behaviour patterns and apply the knowledge to assessment diagnosis and classification systems 2. Enhance personal and social functioning by understanding and analyzing reasons for neurotic conditions 3. Identify symptoms of panic and obsession, analyze the impact of these conditions and control them 4. Comprehend the categories of sexual variants and dysfunctions and its treatment 5. Examine the categories of personality disorders and critically evaluate the manifestation of these conditions on day-to-day functioning
V	PS18/5C/OZB	Organizational Behavior	<ol style="list-style-type: none"> 1. Explain the influence of human attributes in the functioning of organization 2. Identify the factors that motivate individuals at work 3. Critically examine interpersonal skills for effective organizational functioning 4. Analyze and inspect the human factor behind optimal functioning of an organization

			<ol style="list-style-type: none"> 5. Compare and Contrast various organizational practices and structure contributing to organizational effectiveness
V	PS18/5C/SP2	Social Psychology II	<ol style="list-style-type: none"> 1. Illustrate group influences and apply the knowledge to explain day to day events 2. Critically examine intimate relationships and infer the dynamics of intimate relationship such as friendship and love. 3. Identify reasons for why, when people help and devise strategies to promote pro-social behavior 4. Summarize factors that cause aggression and apply the knowledge to avert and reduce aggression 5. Understand the dynamics involved in conflict and explore ways of conflict resolution.
V	PS18/5C/PST	Psychological Testing	<ol style="list-style-type: none"> 1. Assess central human attributes such as personality, intelligence, thought and attitudes through standardized tests. 2. Demonstrate skills in administering and scoring assessment measures 3. Demonstrate competence in drawing inferences from the results without bias 4. Demonstrate competence in writing a standard report
V	PS18/5E/HTP	Health Psychology	<ol style="list-style-type: none"> 1. Trace the evolution of the field of medicine in the treatment of illness and the need and trends that shaped the emergence of the field of health psychology. 2. Utilize the knowledge on health behaviour models to identify behavioural immunogens and pathogens and apply the understanding to personal health behaviours 3. Comprehend stereotyped responses and behaviours to chronic illnesses and the role of health practitioners in treatment adherence and recovery. 4. Analyze sources of stress and evaluate the effectiveness of various stress Management strategies. 5. Identify pain related physiological and

			psychological effects and explain ways of coping with it
V	PS18/SS/POP	Positive Psychology	<ol style="list-style-type: none"> 1. Trace the origin of the field of positive psychology and describe the key concepts relating to positive emotions, positive cognitions and positive behavior. 2. Experiment the techniques and strategies of positive psychology for enhancement of self and significant others. 3. Able to come up with pertinent research questions to find solution(s) for day to day requirements.
VI	PS18/6C/AB2	Abnormal psychology II	<ol style="list-style-type: none"> 1. Comprehend the etiology, symptom presentation, course and treatment for various disorders of the mood. 2. Explain etiology, onset, course, treatment and prognosis for schizophrenia 3. Analyze the patterns and effects of substance use, abuse and dependence and gain knowledge on treatment options available for alcohol related disorders. 4. Analyse the categories of childhood disorders and critically evaluate the effects of these conditions on day-to-day functioning of the developing child 5. Examine and understand the categories, causes and treatment for neuro-Developmental disorders in the course of the developmental period.
VI	PS18/6C/HRM	Human Resource Management	<ol style="list-style-type: none"> 1. Summarize the nature, functions, principles and skills required for Human Resource Management by HR professionals and select strategies to enhance performance 2. Demonstrate the ability to analyze jobs and redesign, if required and evaluate the job design 3. Explain the importance of recruitment and selection and display the ability to select suitable candidates 4. Understand the need and components of orientation programme and compare and contrast career and talent management 5. Comprehend the significance and

			progression of training and outline ways to make training successful
VI	PS18/6C/CSP	Counselling Psychology	<ol style="list-style-type: none"> 1. Comprehend the basic concepts and requirement's to become a counselor 2. Demonstrate verbal and non-verbal skills required in the process of Counseling 3. Explain key assumptions and apply strategies to relevant cases 4. Apply counseling skills appropriately to monitor, regulate and develop self 5. Use counseling skills appropriately various special populations
VI	PS18/6E/ASP	Applied Social Psychology	<ol style="list-style-type: none"> 1. Identify various areas in which social psychology principles can be applied. 2. Evaluate dynamics involved in Individual and Team sports 3. Critically analyze the role of media on social cognition and action. 4. Devise ways to build better environment by identifying social barriers to change 5. Apply social psychology principles to create positive learning environment
VI	PS18/6E/CS (or)	Case Studies (or)	<ol style="list-style-type: none"> 1. Describe the process of conducting case studies and also compare and contrast case study with other research methods. 2. Infer and interpret collected information about an individual from verbal reports, case records and other data 3. Understand the challenges of rapport building and devise ways to establish rapport to facilitate in-depth study of a individual
VI	PS18/6E/SR	Survey Research	<ol style="list-style-type: none"> 1. Review appropriate literature for selection of a research problem 2. Construct checklists /opinionnaire to assess participant's attitude/preferences/ traits/ behaviour. 3. Conduct a survey to collect data for the purpose of assessment 4. Use appropriate statistics to interpret data and infer conclusions within the hypothesis testing framework. 5. Prepare a research report using APA format

BSC CLINICAL NUTRITION

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	CN18/1C/FSE	Food Science	<ol style="list-style-type: none"> 1. Identify, Define and classify different food groups, nutrients, and different pre-preparation and cooking methods adopting best practices of health and safety. 2. Describe the composition and nutritive value of different food groups and their role in cookery from current literature. 3. Define and explain the physical and chemical changes occurring in the nutritive and non-nutritive constituents of different foods during various cooking processes. 4. Apply the current understanding of food science to describe the various sustainable food practices like energy and nutrient conservation methods 5. Analyze and understand the principles in cooking and its effect on sensory attributes and nutrients.
I	CN18/1N/ART	Art of Interior Decoration	<ol style="list-style-type: none"> 1. Define the various principles of design 2. Apply the principles of designs in interiors 3. Identify and select the right type of furniture and furnishings for interior design
II	CN18/2C/PHY	Physiology	<ol style="list-style-type: none"> 1. Identify the major levels of organization, major components of each organ and define the relationship between anatomy and physiology 2. Explain the concept of homeostasis, negative and positive feedback mechanisms and usage of anatomical terms to describe the body 3. Illustrate the functions of important physiological systems including digestive, cardio respiratory, renal, reproductive, endocrine and nervous. 4. Distinguish the interaction between separate systems to yield the integrated physiological responses in the body 5. Develop competency to analyze relationship between health, disease and physiology
I & II	CN18/2C/PR1	Food Science & Physiology	FOOD SCIENCE <ol style="list-style-type: none"> 1. Identify the different food ingredients and

		Practical	<p>incorporate traditional and sustainable cooking techniques</p> <ol style="list-style-type: none"> Describe and conduct appropriate sensory analysis of recipes Demonstrate skills while using cooking utensils and equipment during food preparation <p>PHYSIOLOGY</p> <ol style="list-style-type: none"> Recognize and identify the principle tissue structures Perform, analyze and interpret the experiments of blood parameters.
II	CN18/2N/BFP	Basics of Food Preservation	<ol style="list-style-type: none"> Define the various methods of food preservation. Identify the different types of packaging materials Explain the simple methods of preparing fruit and vegetable based preserves
III	CN18/3C/HNU	Human Nutrition	<ol style="list-style-type: none"> List or define key terms related to macro nutrients, micronutrients, water, electrolyte as in sources, losses during processing, deficiency and RDA Classify micronutrients and examine/discuss their functions, metabolism and deficiencies. Define and explain the relationship between nutrients and nutrient metabolism Identify and analyse the distribution, functions, metabolism, deficiency of micronutrients Explain and analyse the role of water and electrolytes in human health
III	CN18/3A/MIC	Microbiology	<ol style="list-style-type: none"> Outline the fundamental knowledge on the microorganisms and classify them Explain the sources of contamination and spoilage of foods Classify the different types of immunity and describe the vaccines Categorize the microorganisms in soil, water, air and sewage and assess the quality of water Examine the causes and prevention of food poisoning and food borne infections. Distinguish between sterilization and disinfection and outline the appropriate methods to be used in different settings.

IV	CN18/4C/NLC	Nutrition Through Lifecycle	<ol style="list-style-type: none"> 1. Explain the physiological basis for nutritional needs through the human lifecycle 2. Identify nutrition related concerns and deficiency disorders at every stage of lifecycle 3. Discuss appropriate dietary guidelines for various age groups 4. Construct and interpret diets to meet the nutritional needs across the lifecycle 5. Relate healthy eating behaviours to general well being
IV	CN18/4A/NBC	Nutritional Biochemistry	<ol style="list-style-type: none"> 1. Define various inborn errors of metabolism 2. Outline the structure and classification of major biological macromolecules, specific micro molecules and enzymes 3. Illustrate the major metabolic pathways and its interrelationship 4. Outline the process of biological oxidation and metabolic release of energy 5. Apply and relate the knowledge of biochemistry to nutrition, health and diseases
III & IV	CN18/4C/PR2	Human Nutrition & Nutrition Through Lifecycle practical	<p>Human Nutrition</p> <ol style="list-style-type: none"> 1. Estimate the amount of specific biological macro and micro molecules 2. Assess the energy requirements and evaluate the quality of protein rich recipes by chemical scoring method <p>Nutritional Biochemistry Practical</p> <ol style="list-style-type: none"> 1. Planning and Preparing diets for individuals across the life span 2. Developing indigenous, value added and low cost complementary feeds 3. Planning and preparing suitable and sustainable diets for deficiency diseases.
III & IV	CN18/4A/PR1	Microbiology & Nutritional Biochemistry Practical	<ol style="list-style-type: none"> 1. Learn techniques to identify and differentiate microorganisms 2. Demonstrate and identify the best practices relating to sterilization and disinfection appropriate to various settings to promote healthy, safe and eco-friendly environment. 3. Recall relevant principles and practical procedure for various analytical techniques

			<ol style="list-style-type: none"> 4. Demonstrate analytical techniques 5. Identify macro and micro nutrients based on qualitative analysis
V	CN18/5C/FM1	Food Service Management I	<ol style="list-style-type: none"> 1. Identify and differentiate types of food service sectors. 2. Discuss and apply the principles of menu planning and standardisation of recipes. 3. Apply the principles and tools of management for effective administration of organisation 4. Differentiate and apply the knowledge and skills in planning and designing layout for food service outlets 5. Apply the skills for food purchase, storage, preparation, service and maintenance of records
V	CN18/5C/HFS	Human Development and Family Studies	<ol style="list-style-type: none"> 1. Identify the major developmental milestones of individual across the lifespan in the areas of physical, social, emotional, cognitive and language development 2. Interpret inputs and insights regarding family – adjustments, critical situations 3. Explain the psychosocial, economic and health issues of the aged in the current scenario. 4. Examine the prenatal and postnatal care of mother and child. 5. Develop the skills in handling real life situations in order to face challenges and opportunities in life
V	CN18/5C/BCL	Biomarkers in Clinical Nutrition	<ol style="list-style-type: none"> 1. Outline on the basic principles of various instruments used in analysis 2. Discuss enzyme assays as diagnostic tools in diseased conditions 3. Describe inborn errors of metabolism 4. Apply basic concepts of liver and kidney function test in diagnosis and interpretation 5. Examine and assess various diagnostic test in diabetes mellitus 6. Compose recent biomarkers used as diagnostic tool in nutrition
V	CN18/5C/MT1	Medical Nutrition Therapy I	<ol style="list-style-type: none"> 1. Recall and list the predisposing factors, symptoms of diseases and the metabolic derangements during various clinical conditions for their effective management

			<ol style="list-style-type: none"> 2. Interpret and describe the role of specific nutrients and analyse systematically the effect of deficiency in management of diseases 3. Implementation of skills in planning and formulate dietary recommendations appropriate to the clinical condition 4. Analyze the biochemical parameter ,decide appropriate nutritional requirement and recommend dietary treatment 5. Assess the nutritional status and determine effective dietary management to combat malnutriton 6. Compile the subjective and objective assessment and administer diets to prevent and control the progression of diseases.
V	CN18/5E/IDH	Interior Decoration & Housekeeping	<ol style="list-style-type: none"> 1. Outline the universality of principles and elements of design 2. Explain the basic concepts in the selection and types of furniture, furnishings, floor coverings and accessories 3. Apply the colour and lighting principles in designing interiors 4. Analyse the scope of various styles of flower arrangement 5. Discuss the importance of the housekeeping operations 6. Manage the public and private areas in various establishments
V		Self study course- Health Psychology	<ol style="list-style-type: none"> 1. Identify the importance of health psychology in enhancing well being. 2. Learn strategies to foster positivity and wellness. 3. Outline the relevance of various intervention strategies in the current health scenario.
VI	CN18/6C/FM2	Food Service Management II	<ol style="list-style-type: none"> 1. State the various styles of food and beverage services offered in food service sectors 2. Discuss the basic technical skills, interpersonal skills and the significance of hygiene and safety in the food premises 3. Apply the management concepts to personnel recruitment, selection, training, appraisal, book keeping and pricing methods

			<ol style="list-style-type: none"> 4. Classify equipments and acquire knowledge on equipment selection 5. Apply knowledge and skills to become an entrepreneur in running a food service operations
VI	CN18/6C/MT2	Medical Nutrition Therapy II	<ol style="list-style-type: none"> 1. Acquaint and analyse systematically the various metabolic changes in the diseased organs and understand the nutritional implications of the diseases 2. Critically analyse the symptoms and complications of chronic disease conditions and determine the dietary intervention to be employed. 3. Apply the knowledge base and professionally demonstrate the skill acquired in assessing the nutritional status of the individuals and evaluate the extent of deficiencies. 4. Analyze the symptoms and biochemical parameters to understand the severity of the disease for effective administration of diet therapy 5. Decision to execute and evaluate appropriate dietary modification in the management of the disease and its impact on the nutritional status
VI	CN18/6C/SPN	Sports Nutrition	<ol style="list-style-type: none"> 1. Outline the nutritional guidelines for optimal health and performance enhancement 2. Discuss the different types of assessment of body composition. 3. Plan diets for various sports events 4. Assess, evaluate and analyse appropriate use of nutritional supplements and ergogenic aids 5. Explain the nutritional concerns of female athletes 6. Develop and justify the preparation of sports drinks
VI	CN18/6E/PHN	Public Health Nutrition	<ol style="list-style-type: none"> 1. Define and summarize the nutritional problems facing the country. 2. Classify the causes of malnutrition in India and demonstrate knowledge of various nutrition intervention schemes and assessment techniques for the community. 3. Justify the role of nutrition in national

			<p>development through various key health indicators and government policies</p> <ol style="list-style-type: none"> 4. Explain breastfeeding policies of the country and to formulate low cost weaning foods using emerging trends and technologies. 5. Plan nutrition health education programs for vulnerable sections of the community promoting sustainability, gender equity and safe health practices.
VI	CN18/6E/FPR	Food Preservation	<ol style="list-style-type: none"> 1. Identify the spoilage in fresh and processed foods and describe the physical, chemical and biological quality loss in food. 2. Describe the methods implemented to preserve foods with desirable properties balancing social and cultural norms. 3. Classify and explain food additives, food adulterants and current trends in food standards related to food safety practices. 4. Distinguish various convenience foods processing and preservation techniques; applying emerging technologies maintaining sustainability and ecological balance. 5. Outline the various methods & materials in food packaging with emphasis on current technological advances.
V & VI	CN18/6C/PR3	Food Service Management Practical	<ol style="list-style-type: none"> 1. Identify and classify various sectors of catering industry 2. Differentiate equipments, menu, styles of service, lay out, organisation structure and the food production cycle 3. Build the skills of interpretation and report writing on industrial visits. 4. Assess food handling and sanitary practices in the food service establishments. 5. Formulate and Standardization of different cuisines
V&VI	CN18/6C/PR4	Medical Nutrition Therapy Practical	<ol style="list-style-type: none"> 1. Understand the nutritional implications of the diseases 2. Determine the dietary intervention to be employed 3. Apply the knowledge base and professionally demonstrate the skill to

			<p>evaluate the extent of deficiencies.</p> <ol style="list-style-type: none"> 4. Analyze the symptoms and biochemical parameters for effective administration of diet therapy 5. Decision to execute appropriate dietary modification
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BSC VISUAL COMMUNICATIONS

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	PART III VC18/1C/UNC	CORE1: Understanding Communication (T)	<ol style="list-style-type: none"> 1. Outline the types, functions and models of communication 2. Analyze and apply verbal and non-verbal communication appropriately 3. Develop listening skills 4. Illustrate public communication 5. Apply presentation skills using visual aids
I	VC18/1C/BAP	CORE2: Basic Photography (P)	<ol style="list-style-type: none"> 1. Recall history of Photography 2. Develop Photography skills 3. Interpret different types of lighting and design according to photos 4. Visualize the rules of photography and apply it in composition 5. Apply digital photography techniques
I	VC18/1A/ARD	CORE3: Art And Design (P)	<ol style="list-style-type: none"> 1. Illustrate art technique and skills in art and design 2. Experiment and apply principles and elements of design 3. Compose and create the drawing with shapes and shades 4. Translate from 3d object to 2d space using perspectives and fonts 5. Create and develop art techniques using colors
I	VC18/1N/BAD	1c – Basics Of Drawing (P)	<ol style="list-style-type: none"> 1. Demonstrate and apply the basics of drawing 2. Develop the techniques and skills in drawing 3. Use skills using perspectives , blending with lighting
II	PART III VC18/2C/IVC	CORE1:Introduction To Visual Communication(T)	<ol style="list-style-type: none"> 1. Understand the history and process of visual communication 2. Explain various theories of visual communication and its application 3. Interpret the concept ‘visual perception’ 4. Develop understanding on various media 5. Analyze stereotypes used in media
II	VC18/2C/ADE	CORE2: Advertising Essentials (P)	<ol style="list-style-type: none"> 1. Understand the process of advertising tools and need for advertising 2. Interpret and classify advertisements in

			terms of target audience and marketing 3. Apply creative techniques in copy writing and designing an advertisement 4. Explain the structure of an ad agency 5. Outline the tools of PR and to infer the laws of advertising
II	VC18/2A/GRD	ALLIED: Graphic Art Design (P)	Outline the history of visual arts 1. Make use of rules , hierarchy, mandatory, alignment, expression 2. Imagination, creative thinking and design in computer 3. Research, Imagine, process and execute the solution to the needs in creative industries. 4. Analyze, synthesize and utilize design process from concept to solution to communication process.
III	PART III VC18/3C/TEP	CORE1: Television Production(T)	1. Outline visual language and video production aspect 2. Understanding on the working of television and various video formats 3. Summarize the technique and operation of video camera 4. Analyze the basics of lighting in video production 5. Analyze and apply video editing techniques
III	VC18/3C/ADP	CORE2: Advanced Photography(P)	1. Choosing the right lens based on the requirement 2. Designing different kinds of lighting for producing creative photographic images 3. Applying and manipulating the rules of composition 4. Summarize specialized training in shooting photographs 5. Classifying different genres of photography
III	VC18/3A/FIS	ALLIED: Film Studies (P)	1. Summarize the evolution of cinema 2. Identify the theories and movements of cinema 3. Utilize the technical aspects in analyzing films 4. Classify the categories in film making 5. Analyze and appreciate films based on the techniques extended
IV	PART III	CORE1: Media,	1. Explain the nature and scope of mass

	VC18/4C/MCS	Culture And Society(T)	media 2. Identify mass audience 3. Summarize impact of media 4. Examine the influence of media in culture 5. Analyze the gender stereotypes in media
IV	VC18/4C/SCW	CORE2: Script Writing (P)	1. Define script formats. 2. Understand the importance of techniques in script writing 3. Apply character archetypes and justify the character arc 4. Utilize and elaborate the script formats 5. Create scripts for various genres –Film, Television and Radio
IV	VC18/4A/RAP VC18/4A/D2A	Allied: (Option 1) Radio Production (T) (Option 2) Digital 2 D Animation (P)	1. Develop computer skills 2. Make use of rules , hierarchy, mandatory, alignment, expression 3. Imagination, creative thinking and design in computer 4. Research, Imagine, process and execute the solution to the needs in creative industries. 5. Analyze, synthesize and utilize design process from concept to solution to communication process.
V	VC18/5C/MEO	Core:1 Media Organisation(T)	1. Identify and list the Indian media in current scenario 2. Compare the organizational structures in media and to understand hierarchy 3. Perceive and relate to the economy of media 4. Interpret the importance of Indian media economy 5. Analyze and classify the audience and to interpret programming strategies and management skills
V	VC18/5C/MER	Core:2 Media Research (T)	1. Understand on research and research process 2. Outline various research approaches 3. Analyze and apply research techniques in print and electronic media 4. Analyze and apply research techniques in advertising 5. Use research techniques in new media
V	VC18/5C/VTa	Core:3 Visual Text Analysis(T)	1. Apply the meaning of signs and symbols in media text

			<ol style="list-style-type: none"> Utilize marxism to analyze media text Assess the importance of psychoanalytical studies in media and to identify the viewership of the audience Identify and translate the media representations based on feminism Utilize the media texts in identifying and summarizing the function of various media
V	VC18/5C/VIP	Core:4 Video Production (P)	<ol style="list-style-type: none"> Utilize ideas to script Interpret script to video format Composing the footages to final output Designing titles and graphics for the output Inventing innovative ideas for video production
V	VC18/5C/D3A	Digital 3d Animation (P)	<ol style="list-style-type: none"> Demonstrate and apply the principles of animation Compose the timing and key framing in animation Create skills using modeling, lighting, camera, materials and animation. Apply innovate strategies during modeling and animation Design animation in movie format from ideation to output
VI	VC18/6C/PRP	Core:1 Professional Practice (P)	<ol style="list-style-type: none"> Prepare curriculum vitae and develop professional skills for media industry purpose Analyze the legal contracts and client requirements for the media industry Summarize the media laws and acts and implement in the media industry Classify professional ethics and ethical codes for media professionals Create professional portfolio and presentation
VI	VC18/6C/INT	Core:2 Internship (P)	<ol style="list-style-type: none"> Prepare curriculum vitae and develop professional skills for media industry purpose Analyze the legal contracts and client requirements for the media industry Summarize the media laws and acts and implement in the media industry Classify professional ethics and ethical codes for media professionals

			5. Create professional portfolio and presentation
VI	Self study paper (optional)	Media Laws	<ol style="list-style-type: none"> 1. Understand the features of Indian Constitution 2. Analyse the history of press legislation 3. Explain various media laws 4. Comprehend the role and responsibilities of Professional Bodies 5. Discuss the cyber laws



BSC MATHS WITH CA

SE M	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	MC18/1C/TLT//MA18/1C/TL T	Trigonometry and Laplace Transforms	<ol style="list-style-type: none"> 1. Expand and solve problems involving Trigonometric functions in terms of series of multiple of θ. 2. Evaluate the hyperbolic functions and inverse hyperbolic functions and study the relation between them. 3. Analyse and calculate the logarithm of complex quantities. 4. Discuss and find the summation of series of complex quantities. 5. Apply Laplace Transforms and Inverse Laplace Transforms, to solve problems of linear differential equations.
I	MC18/1C/PLC	Programming Language C (Theory)	<ol style="list-style-type: none"> 1. Revise the basic concepts of programming and enable students to understand about data types input output statements and write simple programs. 2. Explain about decision making statements like if, if else, else if ladder, switch, go to etc. 3. Use the concept of one dimensional array, two dimensional array and operators in Programs. 4. Analyze about in-build functions, user defined functions and study about pointers and recursion to develop programs. 5. Explain the basics of file handling and structure concepts like arrays of structures, arrays within structures.
I	MC18/1C/PR1	Programming Language C	<ol style="list-style-type: none"> 1. Create different programs using if, if else, for, arrays,

		(Practical)	<p>functions and pointers and prepare the students to write programs.</p> <ol style="list-style-type: none"> 2. Apply the concept of structures and file handling to develop programs.
II	MC18/2C/CAL	Calculus	<ol style="list-style-type: none"> 1. Use Leibnitz Theorem to determine the nth derivative of product of functions. 2. Compute radius of curvature for Cartesian curves, parametric curves. 3. Evaluate integral values by appropriate reduction formula. 4. Identify and evaluate the multiple integral techniques. 5. Analyse the relation between Beta and Gamma Function and solve problems.
II	MC18/2C/C++	 <p>Object Oriented Programming with C++(Theory)</p>	<ol style="list-style-type: none"> 1. Identify the data and understand the basic concepts in Object Oriented Programming C++. 2. Apply the concepts of arrays and friend function for program development and execution. 3. Evaluate the data and use constructors, destructors and operator overloading in the program for execution. 4. Demonstrate the usage of inheritance while examining the execution. 5. Formulate the file management of Object Oriented Programming C++ for writing program.
II	MC18/2C/PR2	Object Oriented Programming with C++(Practical)	<ol style="list-style-type: none"> 1. Identify the data and understand the basic concepts in Object Oriented Programming C++. 2. Apply the concepts of arrays and friend function for program development and execution.

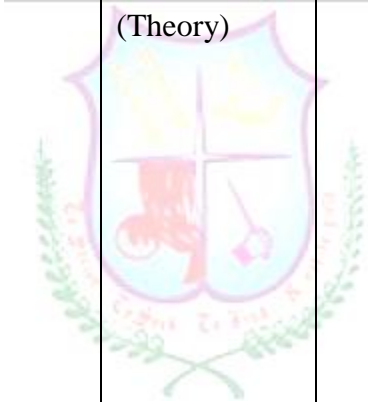
			<ol style="list-style-type: none"> Evaluate the data and use constructors, destructors and operator overloading in the program for execution. Demonstrate the usage of inheritance while examining the execution. Formulate the file management of Object Oriented Programming C++ for writing program.
III	MC18/3C/CLA	Classical Algebra	<ol style="list-style-type: none"> Evaluate the summation of series using Binomial, Exponential and Logarithmic methods. Compare and identify the polynomial equations Apply the analytical techniques in finding the roots of any polynomial equation. Demonstrate the concept of divisibility and primes. Use the procedure to find congruence and primitive roots.
III	MC18/3C/DEF	Differential Equations and Fourier Series	<ol style="list-style-type: none"> Evaluate and solve Separable, Homogeneous, Exact, and Linear first order differential equations. Analyse and solve differential equations using variable coefficients and variation of parameters Formulate the separation of variables and solve simultaneous equations and analyze the behaviour of solutions. Design P.D.E by eliminating arbitrary constants and variables and solve its standard types. Identify the nature of the Fourier series that represent even and odd functions and examine the derivations of a

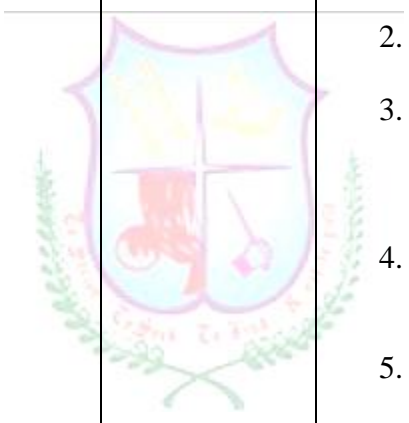
			Fourier series
IV	MC18/4C/DSA	Data Structures and Algorithms	<ol style="list-style-type: none"> 1. Identify the data and apply the suitable concepts of data structure in programming. 2. Demonstrate linked list and its operations for programming. 3. Explain and utilize the concepts of stack and queue for programming. 4. Compare the data in the required format using search and sort techniques. 5. Ability to analyze and check the algorithms.
IV	MC18/4C/VGF//MA18/4C/VGF	Vector Calculus, Geometry and Fourier Transforms	<ol style="list-style-type: none"> 1. Discuss the Basic concepts of gradient, Scalar Potential, Directional Derivative, Divergence and Curl 2. Evaluate line integral, surface integral and volume integral 3. Apply Green's theorem, Gauss-Divergence theorem, Stoke's theorem to evaluate Area and Volume. 4. Discuss the Geometrical concepts of Planes. 5. Apply the concept of Polar coordinates to find the Distance between the Points, Area of a triangle and solve problems on Straight lines. Determine Fourier Transform for a given function.
V	MC18/5C/ALS	Algebraic Structures	<ol style="list-style-type: none"> 1. Demonstrate the importance of algebraic properties and definitions. 2. Explain the equivalence relation between sets and equivalence classes to form a normal subgroup and quotient group. 3. Analyse the embedding of any group into a group of permutations. 4. Identify the rings and analyse the basic theoretical proofs.

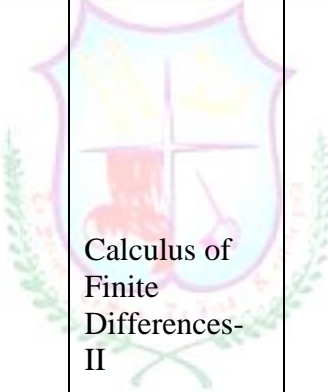
			5. Formulate any given integer either as prime or product of primes in unique way.
V	MC18/5C/RAN	Real Analysis	1. Explain the fundamental properties of real numbers that leads to formal development of real analysis. Also able to demonstrate the limits and how their use in sequences, series & derivatives. 2. Identify the given series as whether convergent or divergent. 3. Apply the abstract ideas and rigorous methods of mathematical analysis to practical problems. 4. Construct mathematical proofs for basic results of real analysis. 5. Identify the sets of measure zero and Riemann Integral.
V	MC18/5C/MEC	Mechanics	1. Identify the nature of forces, the conditions of equilibrium of a particle and solve problems based on real life conditions. 2. Explain moment of forces and use varignons theorem to calculate the moment effect of a force. 3. Identify basic kinematics quantities of rectilinear and curvilinear motion of a particle and solve the related problems. 4. Predict the location and to find velocity of a projectile at different points in trajectory properties of a projectile and also to discuss direct and oblique impact problems. 5. Able to derive basic orbit equations and its relationship to the conic sections.
V	MC18/5C/PYT	Python Programming	1. Analyze data and understand the basic concepts in Python.

		(Theory)	<ol style="list-style-type: none"> 2. Apply the concept of sequences, string and built-in-fuction of python for program development and execution. 3. Identify the data and use correction control statements for executing the inputs. 4. Examine the knowledge of error correction to execute the python program 5. Formulate the file management in Python Programming.
V	MC18/5C/PR3	Python Programming (Practical)	<ol style="list-style-type: none"> 1. Analyze data and understand the basic concepts in Python. 2. Apply the concept of sequences, string and built-in-fuction of python for program development and execution. 3. Identify the data and use correction control statements for executing the inputs. 4. Use the knowledge of error correction to execute the python program 5. Formulate the file management in PythonProgramming.
V	MC18/5E/OR1	Operations Research-I	<ol style="list-style-type: none"> 1. Analyse and study the concepts in linear programming problems to optimize the solution. 2. Examine, Analyse, formulate and evaluate the optimal solutions using various methods in linear programming. 3. Evaluate the optimal solution for various industry oriented problems using quantitative and qualitative tools like Modi's method 4. Compute the optimal solution by using Hungarian method to minimize the cost. 5. Analyse the application of game theory in various fields and obtain the best solution to

			optimize the function.
V	MC18/5E/ENT	Elementary Number Theory	<ol style="list-style-type: none"> 1. Understand the fundamental concepts of Mathematical Induction. 2. Evaluate the Greatest common Divisor and Least common multiple using the algorithms. 3. Determine the Diophantine equations for three or more unknowns and understand the knowledge of cryptography. 4. Demonstrate the quadratic residues, elementary Properties. 5. Evaluate and analyse the perfect numbers using the Mersenne and Fermat Numbers.
VI	MC18/6C/LAL	Linear Algebra	<ol style="list-style-type: none"> 1. Identify the vector spaces and its subspaces. 2. Find the dimension of vector space and distinguishes the linear dependent and independent vectors which expands knowledge in Matrices. 3. Evaluate the length & distance of vectors and to construct orthonormal sets of vectors that helps in understanding the few concepts of mechanics. 4. Able to characterize the linear transformation as one-one, onto transformations and their role in carrying a basis of vector space to another vector space. 5. Express linear transformation in matrix form to make the calculation or representation easier, for analysing the given data.
VI	MC18/6C/CAN	Complex Analysis	<ol style="list-style-type: none"> 1. Analyse limits and continuity for complex function and use appropriate techniques for solving problems using C-R

			<p>equations.</p> <ol style="list-style-type: none"> Construct conformal mapping between many kinds of domain and able to plot the image of the curve by complex transformation from z-plane to w-plane. Evaluate integration using complex variables. Represent function as Taylor's and Laurent's series and classify zeros and singularities of analytic functions and also compute residue of a function. Evaluate different types of contour integrals using residue theorem.
VI	MC18/6C/JAV	Programming in Java (Theory) 	<ol style="list-style-type: none"> Explain the basic concepts of object oriented programming and enable students to understand about introduction of Java programming. Discuss about data types operators and decision making statements like if, if else, else if ladder etc. Use the concept of decision making and looping, classes, objects, methods, and strings to develop programs. Analyze and to understand the concepts of interfaces inheritance and packages. Develop programs in applet and Graphic Programming, Multithreading and Managing errors and Exceptions.
VI	MC18/6C/PR4	Programming in Java(Practical)	<ol style="list-style-type: none"> Prepare different programs using if, if else, for, arrays, functions and pointers. Create programs using inheritance and Applet programming.
VI	MC18/6E/DIM	Discrete Mathematics	<ol style="list-style-type: none"> Prepare Mathematical concepts in terms of predicates, quantifiers, and logical

			<p>connectives.</p> <ol style="list-style-type: none"> Analyse and identify the knowledge of lattices and its properties. Evaluate Boolean functions and simplify expressions using the properties of Boolean algebra. Learn to understand, analyse and develop a strong background in graph theory Identify the knowledge of Eulerian and Hamiltonian theorem using terminology of graphs.
VI	MC18/6E/OR2	Operations Research-II	 <ol style="list-style-type: none"> Study and analyse the concepts of inventory and various inventory models to minimize the cost. Analyse and evaluate the profit using inventory models. Analyse the various queueing models and evaluate the various system performance measures of Queueing. Analyse and ensure optimum utilization of human and other resources. Compute the minimum time required to complete the complex projects using the PERT Technique.
VI	MC18/6E/FSA	Fuzzy set theory and its Applications	<ol style="list-style-type: none"> Explain about the basic concepts of Crisp Set and Fuzzy Set. Discuss about the operators and Complements. Introduce the concept of fuzzy numbers and arithmetic operators in interval Explain about Fuzzy logic and propositions Discuss about the applications of fuzzy in engineering.
I	MC18/1A/FD1// MA18/1A/FD1	Calculus of Finite	<ol style="list-style-type: none"> Compare accuracy, precision and errors.

		Differences- I	<ol style="list-style-type: none"> 2. Applying the Methods of interpolation to compute the missing value in real life problems. 3. Utilize various numerical operators to find the generalized term. 4. Compute the missing values for unequal intervals using divided differences and Lagrange Method. 5. Evaluate the approximate values of the first derivative, max and min values of the function using Newton's formula. 6. Compute definite integral for different combinations of integrands using various methods and analyze their accuracy
II	MC18/2A/FD2// MA18/2A/FD2	 <p>Calculus of Finite Differences- II</p>	<ol style="list-style-type: none"> 1. Compute the summation of series by applying Numerical operators and Euler Maclaurin Method 2. Apply Numerical Methods to evaluate numerical solution of algebraic and transcendental equations. 3. Solve Simultaneous linear equation in three variables. 4. Formulate difference equation for the given problem and solve the equation. 5. Evaluate the solution of first order differential equation using Euler, Picard's and Runge-Kutta Methods.
III	MC18/3A/MS1// MA18/3A/MS1	Mathematical Statistics & R Software – I	<ol style="list-style-type: none"> 1. Differentiate between discrete and continuous random variables and compute the mathematical expectation of random variable 2. Compute mean, median and mode of binomial and poisson distribution and their moments 3. Analyse rectangular and normal distribution and

			<p>compute the various parameter of the distribution. Apply normal distribution properties to solve real life problems.</p> <ol style="list-style-type: none"> 4. Compute correlation and rank correlation and to find the relation between two variables using regression. 5. Effectively use 'R' software for representation of data, computation of correlation and regression lines.
IV	MC18/4A/MS2// MA18/4A/MS2	 <p>Mathematical Statistics & R Software – II</p>	<ol style="list-style-type: none"> 1. Determine the basic concepts of sampling, test statistics and critical region. 2. Understand, apply and compute sample test of hypothetic problem. 3. Apply and examine the chi-square goodness of fit, test for independence ad homogeneity 4. Analyse the principles of designs of experiments to yield valid conclusion. 5. Effectively use 'R' software to find averages and derive at statistical inference from various distributions.
I	MC18/1A/AM1// MA18/1A/AM1	Allied Mathematics I	<ol style="list-style-type: none"> 1. Compute Eigen values and Eigen vector of a square matrix and find inverse of matrix using Cayley - Hamilton theorem. 2. Evaluate the roots of the polynomial equation solving the transformation of equation and Reciprocal equation. 3. Evaluate $\cos n\theta, \sin n\theta, \cos \theta, \sin \theta, \tan \theta$ in power of θ . Compute hyperbolic and inverse hyperbolic function. 4. Derive reduction formula and thereby evaluate standard integral

			5. Find Fourier series expansion for the given function and evaluate Fourier series for odd and even function.
II	MC18/2A/AM2// MA18/2A/AM2	Allied Mathematics II	<ol style="list-style-type: none"> 1. Solve linear differential equation with constant coefficient. 2. Recognize the major classification of PDE'S and solve four standard type of PDE. 3. Solve first order differential equation using Laplace and inverse Laplace transform. 4. Determine gradient, divergence and curl of vectors. 5. Analyse and use Newton's forward, backward and Lagrange's formula for interpolation and apply it in real life problems
I	MC18/1A/STM	Statistical Methods	<ol style="list-style-type: none"> 1. Understanding the basic probability concepts, random variables, conditional probabilities. 2. Analyse data and compute mean, median and mode. 3. Explain the data and compute mean, quartile, standard deviation and co-efficient of variation. 4. Compute correlation and rank correlation and to find the relation between two variables using regression. 5. Discuss the importance of various distributions and solve problems based on real life conditions.
II	MC18/2A /OPR	Operations Research	<ol style="list-style-type: none"> 1. Formulate a LPP and solve it by simplex and graphical method. 2. Understand the concepts of different types of transportation model and its

			<p>application in real life.</p> <ol style="list-style-type: none"> 3. Illustrate the concepts of different types of assignment model and its application in real life. 4. Solve sequencing problems for various jobs and machines. 5. Evaluate network oriented problems using CPM & PERT.
I	MC18/1N/OFM// MC18/1N/OFMH/	Office Management	<ol style="list-style-type: none"> 1. Create document and prepare formatted reports with precision and accuracy. 2. Apply the knowledge of mathematical formulae and make the calculation easier for enormous data. 3. Assess the pictorial representation for analysing the data to present it effectively.
II	MC18/2N/WEB// MC18/2N/WEBH	Web Designing	<ol style="list-style-type: none"> 1. Develop skills to write HTML programming. 2. Create an understanding of the formalistic aspects of design. 3. Implement other sources of data into webpage and creates an attractive webpage.

B COM- BANK MANAGEMENT

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	BM18/1C/FNA	Financial Accounting	<ol style="list-style-type: none"> 1. Discuss the principles and concepts of Accountancy 2. Practical application of determining Insurance claim. 3. Preparation of accounts for consignment of goods and services. 4. Apply the concept and compute Profit or loss made by Branches of Business. 5. Explain the scope and preparation of departmental accounts.
I	BM18/1C/BMT	Business Management	<ol style="list-style-type: none"> 1. Discuss the key management concepts.

			<ol style="list-style-type: none"> 2. Demonstrate knowledge in management functions of planning, organizing, staffing, direction and controlling. 3. Revise the concept and significance of decision making 4. Explain the role of motivation in business. 5.
II	BM18/2C/BST	Business and Statistics	<ol style="list-style-type: none"> 1. Demonstrate business mathematics concepts that are used in the real world like simple and compound interest, annuities and banker's discount. 2. Discuss the concepts of sampling, sampling distribution and estimation 3. Compute using various measures of central tendency 4. Identify and estimate the trend using Time Series analysis 5. Plan the decision making process using Index Numbers.
II	BM18/3C/CA1	Corporate Accounting-I	<ol style="list-style-type: none"> 1. Explain about the types of Shares and apply the accounting treatment for issue, forfeiture and reissue of Shares 2. Apply the accounting treatment for issue and redemption of Preference Shares 3. Apply the accounting treatment for issue and redemption of Debentures 4. Compare the various forms of Underwriting and its accounting treatment. 5. Discuss the reasons for purchase of business by companies 6. Preparation of Company's Final Accounts as per Schedule VI of the Companies Act
III	BM18/3C/BOR	Business Statistics And Operations Research	<ol style="list-style-type: none"> 1. Apply the mathematical tools for solving optimization problems 2. Demonstrate various examples from daily life related to transportation and assignment. 3. Apply correlation and regression techniques of analysis.

			<ol style="list-style-type: none"> 4. Explain the importance and application of non-parametric tests in hypothesis testing. 5. Identify statistical tools needed to solve various business problems
III	BM18/3C/BNK	Banking Theory, Law And Practice- Written	<ol style="list-style-type: none"> 1. Compile on important provisions of RBI Act on Licensing, Opening of branches of banking companies, restrictions and audit of accounts. 2. Explain the general and specific relationship between bank and customer. 3. Revise the features of different type of Negotiable Instrument 4. Identify the role and duties of paying and collecting banker. 5. Utilize Modern day banking – Internet Banking NEFT, RTGS and also role of technology in banking sector
III	BM18/3C/PR1	Banking Theory, Law And Practice- Practical	<ol style="list-style-type: none"> 1. Apply theoretical knowledge in practical E- banking applications 2. Analyse bank procedure on opening of savings bank account & current account 3. Identify the different types of crossing in cheques 4. Compile the various ways of responding to customer complaints 5. Prepare a pay order & a demand draft
III	BM18/3C/PR2	Computer Application In finance	<ol style="list-style-type: none"> 1. Demonstrate word processing concepts and explore the MS office word environment 2. Apply the introductory to intermediate excel skills, features to create and revise existing excel workbooks and worksheets. 3. Explain the basic of accounting concepts and principals and able to generate accounting and inventory masters, vouchers and GST basic reports in Tally ERP 9 4. Discuss the concept of company creation, enter accounting voucher entries including advance voucher entries, do reconcile bank statement, do accrual adjustments and also print

			<p>financial statements etc., in Tally ERP 9.</p> <p>5. Apply the concept of advanced accounting and inventory in Tally ERP 9</p>
IV	BM18/4C/CA2	Corporate Accounting-II	<ol style="list-style-type: none"> 1. Explain about the different methods of valuation of Goodwill and Shares in Companies 2. Prepare and analyse the Profit and Loss Account and Balance Sheet for Banking Companies and its accounting treatment 3. Identify the concept of Amalgamation, Absorption and External Reconstruction of Companies and apply its accounting treatment 4. Explain the procedure of Alteration of Share Capital and Liquidation and apply its accounting treatment 5. Discuss the concept of Holding Companies and preparation of consolidated Balance Sheet
IV	BM18/4C/COL	Commercial Law	<ol style="list-style-type: none"> 1. Identify the core concepts of the law of contracts 2. Demonstrate the principles expounded in the law of contract that legalises any agreement between parties 3. Assess the conditions that discharges a contract and those that constitute breach of Contract 4. Analyse the remedies available for the breach of a contract 5. Outline on the special contracts- Contract of agency and Sale of Goods Act 6. Evaluate a legally binding contract and discern the rights and obligations of parties to a contract
IV	BM18/4C/EPD	Entrepreneurial development-Theory	<ol style="list-style-type: none"> 1. Discuss the fundamentals of entrepreneurship and its role in economic development 2. Outline the role, support and EDP programmes offered by the Government towards Entrepreneurial Development. 3. Explain the role and support extended by funding organizations

			<p>like banks, financial institutions, non banking institutions, Micro Finance Institutions and Angel investors to entrepreneurs</p> <p>4. Analyse the marketing, financial, technological and legal feasibility of business venture and preparation of Business proposal</p>
IV	BM18/4C/PR3	Entrepreneurial development Programme	<p>1. Apply hands on experience by compulsory participation in one day exhibition cum sale of products and services</p> <p>2. Demonstrate practical knowledge through Industrial visits/ entrepreneurial units /field trips etc.</p> <p>3. Formulate the requisite contents for the preparation of Business Proposal by organizing workshops.</p> <p>4. Assess students knowledge on Entrepreneurship by conducting viva voce based on the Project Report submitted.</p>
IV	BM18/4C/EOI	Element Of Insurance	<p>1. Outline the concept of insurance</p> <p>2. Identify the specific principles of insurance</p> <p>3. Demonstrate the features and characteristics of life insurance products.</p> <p>4. Explain about the fire insurance and marine insurance policies</p> <p>5. Outline the concept of bancassurance</p>
V	BM18/5C/FRX	Foreign exchange management	<p>1. Discuss the operations in Foreign Exchange Market.</p> <p>2. Identify the documents used in the international transactions and by institutions which help in international trade.</p> <p>3. Explain the mechanism of international settlements.</p> <p>4. Outline the EXIM policies and foreign exchange regulations.</p> <p>5. Analyse the Foreign Exchange Management</p>
V	BM18/5C/ACM	Accounting For Decision making	<p>1. Demonstrate the knowledge on the fundamentals of Management Accounting</p>

			<ol style="list-style-type: none"> 2. Compute and interpret using different ratios 3. Analyse the operations of the organisation using fund and cash flow statements. 4. Demonstrate different methods used in capital budgeting. 5. Analyze the concept of marginal costing and utilize the same in decision making.
V	BM18/5C/FES	Financial Services	<ol style="list-style-type: none"> 1. Discuss the role of financial services in the financial system. 2. Explain the concept of various financial services available in the market 3. Analyze the performance of financial services in the context market trends 4. Identify the differences between different types of financial services 5. Summarise the impact of financial services on the economic development
V	BM18/5C/MKT	Marketing Management	<ol style="list-style-type: none"> 1. Analyse the relevance of marketing concepts and the impacts of environmental changes on marketing strategies and practices 2. Explain the concept of consumer behaviour and market segmentation. 3. Discuss product mix and analysis of various pricing objectives and strategies 4. Identify the importance of promotional mix and channels of distribution 5. Explain the students about online marketing and global marketing environment.
V	BM18/5E1/TL1	Tax Laws -I	<ol style="list-style-type: none"> 1. Outline on the basic concepts and terminologies in taxation like assessee, assessment year, previous year and charges of tax 2. Identifying incidence of tax based on residential status 3. Tax treatment for Income from salaries, allowances and perquisites and deductions admissible

			<ol style="list-style-type: none"> Learning to compute income from house property, preconstruction period interest, tax treatment for unrealised/ arrears of rent Understanding the basic principles for computing business income and tax treatment for Income from business or profession, admissible deductions, disallowances.
V	BM18/5E2/IMT	Investment Management	<ol style="list-style-type: none"> Discuss the various alternatives available for investment Explain the concept of fundamental and technical analysis. Analyze the relationship between risk and return. Identify the value of equities and bonds. Use the various strategies followed by investment practitioners.
V	BM18/5SS2/CRP	Consumer Rights Protection	<ol style="list-style-type: none"> Discuss the concept of the Consumer and Market. Apply the knowledge in Consumer Protection Law in India Outline the Grievance Redressal Mechanism under the Indian Consumer Protection Law Explain the Role of Industry Regulators in Consumer Protection Compile the role of consumer organizations in consumer Protection
VI	BM18/6C/CAT	Cost Accounting	<ol style="list-style-type: none"> Discuss the concept of cost accounting and demonstrate the use and preparation of cost sheet Compute different methods for material purchases Compare multiple systems for wage payment Examine allocation and apportionment of production overhead Explain the need and methods of reconciliation of cost and financial accounts
VI	BM18/6C/CRM	Credit Management	<ol style="list-style-type: none"> Identify the basic concepts of credit and debt recovery Discuss the various charges created on

			collateral security 3. Explain the documentation procedure and highlight on priority sector advances 4. Demonstrate the appraisal of term loan 5. Criticize on various provisioning norms and Debt Recovery Tribunals
VI	BM18/6C/RMT	Risk Management	1. Explain the concept and significance of Risk Management in Banks 2. Identification of exposures in foreign exchange risk in banks and apply the hedging methods to overcome them 3. Compare the types of interest rate risk and apply the management techniques 4. Discuss on the various credit risk and operational risk of banks and measures to control them using Basel norms 5. Assess the liquidity position of Banks
VI	BM18/6E3/TL2	Tax Laws -II	1. Identify the meaning of capital gains and effect of tax incidence in transfer of capital assets 2. Demonstrate the provisions of Income from Other Sources and Assessment of Individuals 3. Evaluate the deductions allowed in Gross Total Income, Rebates and filing of returns 4. Discussion on GST and its implications compared to the previous forms of indirect taxes 5. Analyze the implementation of GST on supply and Input tax.
VI	BM18/6E4/FMT	Financial Management	1. Demonstrate the significance of leverages, compute the same and draw inferences 2. Understand the different types of dividend policies and plan a suitable dividend policy for the organisation 3. Prepare different types of budgets and exercise control over the use of funds 4. Compute the working capital required and assess the amount of working capital required for a business
VI	BM18/6E5/AUD	Auditing	1. Discuss the scope of auditing Explain the audit of financial statements of a company

			<ol style="list-style-type: none"> Analyze various cash transactions and differentiate between internal control and internal audit Discuss the concept of bank audit and the preparation of audit reports Outline the role, responsibilities and removal of an Auditor
VI	BM18/6E6/CLL	 <p>Company Law & Limited liability Partnership</p>	<ol style="list-style-type: none"> Explain nature and kinds of companies and procedure for formation of companies Identify and gain knowledge on the Memorandum of Association, Articles of Association and Prospectus and the doctrines of Ultra Vires, Constructive Notice and Indoor Management Discuss ways of obtaining membership in a company and its termination and the procedure for transfer and transmission of shares Demonstrate the understanding of the provisions regarding conduct of meetings of the Board of Directors and Shareholders, Voting Rights and Resolutions. Analyse the Procedure for Winding up and Law relating to Insolvency and Bankruptcy Code (IBC) Outline and explore the concept of LLP and discuss the Rights and Liabilities and the conversion of Firms, Private Companies and Unlisted Public companies

B COM HONORS

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	HC18/1C/FAG	Financial Accounting	<ol style="list-style-type: none"> 1. Explain the basic Accounting Concepts 2. Prepare final accounts with adjustments for the companies 3. Compute value of depreciation through various depreciation methods 4. Apply and understand branch and departmental accounts 5. Prepare accounts on Consignments, Joint Venture and Single entry system
I	HC18/1C/BTP	Banking Theory, Law & Practice	<ol style="list-style-type: none"> 1. Be Conversant with banking law's historic development and how it shaped today's bank regulatory regime. 2. Analyze different Modes of creating charge related to Secured Advances 3. Develop understanding on Negotiable Instruments Act, 1881 and Crossing of cheques 4. Understand various aspects of Collecting Banker and Paying Banker 5. Develop in-depth understanding on concepts relating to Modern Banking
I	HC18/1C/POM	Principles Of management	<ol style="list-style-type: none"> 1. Explain the conceptual framework and functions of management. 2. Identify the related challenges in decision making arising from internal and external factors affecting organizational decisions. 3. Create appropriate authority and responsibility relationships among formal and informal groups. 4. Evaluate employee's performance by applying the suitable appraisal technique. 5. Use requisite skills in critical situations and manage the organization effectively.

II	HC18/2C/AFG	Advanced financial Accounting	<ol style="list-style-type: none"> 1. Explain the concepts of Partnership with respect to admission, retirement and death. 2. Analyze the procedure for dissolution and insolvency. 3. Prepare insurance accounts. 4. Understand and apply the various aspects of hire purchase system 5. Prepare Investment accounts
II	HC18/2C/MCL	Mercantile Law	<ol style="list-style-type: none"> 1. Analyse and understand the provisions of the Indian Contract Act and the elements that form the basic concept of a contract 2. analyze the Various aspects of contract . 3. Apply their knowledge of Agency in business activities 4. Understand the concepts of Indemnity, guarantee, bailment and pledge 5. Explain the legal aspects relating to sale of goods
II	HC18/2C/INS	Principles of Insurance	<ol style="list-style-type: none"> 1. Gain knowledge on key concepts and IRDAI regulations. 2. Learn the characteristics of life insurance; distinguish between the various classes of insurance and the procedures for effecting it. 3. Explain the conditions and procedures of Fire and Marine insurance policies 4. Discuss the conditions relating to the miscellaneous insurance policies. 5. Know about the procedures for effecting Risk Management
II	MA18/2C/OPT	Optimization Techniques	<ol style="list-style-type: none"> 1. Discuss how events and trends in the business environment affect business concerns in Indian scenario and globally 2. Outline the importance of internal analysis for an organisation 3. outline the various challenges faced by Indian business enterprises in the era of globalisation and with the entry of multinational companies 4. Analyse and implicate the role of WTO

			<p>agreements and other international organisations and their impact on Indian industries. Gain foundation knowledge on IPRS and registration of Intellectual property</p> <p>5. Relate the relevance of corporate governance and professional ethics for business firms.</p>
III	HC18/3C/CAG	Corporate accounting	<p>1. Develop an understanding of conceptual framework on regulatory environment in which the companies are formed and gain knowledge on Issue of Shares and Debenture.</p> <p>2. Discuss accounting requirements for corporate groups and gain familiarity with the theory underlying the methods for redemption of Debentures and preference shares</p> <p>3. Demonstrate a thorough knowledge of relevant Accounting standards and the ability to apply them to solve practical problems in the Final accounts of the company.</p> <p>4. Develop knowledge on Alteration and Reduction of Share Capital</p> <p>5. Gain ability to prepare Liquidator's Final Statement of Accounts.</p>
III	HC18/3C/BST	Business statistics	<p>1. Apply the basic concepts of statistics, graphs and diagrams</p> <p>2. Compute mean deviation, standard deviation and central Tendency</p> <p>3. Analyse correlation in business applications</p> <p>4. Apply regression in business applications</p> <p>5. Explain various methods of Hypothesis.</p>
III	HC18/3C/ECG	Elements Of cost accounting	<p>1. Discuss the scope of cost accounting and Classify the direct and indirect costs and its implication in fixing the selling price of a product</p> <p>2. Assess the ideal quantity of levels of stock to be maintained and identify the appropriate method of pricing of</p>

			<p>material issues.</p> <ol style="list-style-type: none"> 3. Computation of Labour cost and ascertain the method of wage payment to control Labour turnover. 4. Prepare Cost data for allocation and apportionment of overheads and computation of Machine hour rate. 5. Understands the relevance of modern methods of costing and application of Analytical skill to scrutinize ways of computing costs.
III	HC18/3C/CMG	Contemporary marketing	<ol style="list-style-type: none"> 1. Demonstrate strong understanding of marketing and its function 2. Compare and assess the current marketing trends and emerging ones 3. Analyze and explain the patterns of consumer behavior 4. Identify the newer pricing techniques 5. Understand and evaluate the ethics and its issues in marketing
IV	HC18/4C/SAS	Special accounts	<ol style="list-style-type: none"> 1. Analyse and use the different techniques for the valuation of shares 2. Compare, analyze and understand the concepts of Mergers and Amalgamation 3. Apply their knowledge of accounting treatment and transaction for Holding companies. 4. Use the techniques of preparing P&L and balance sheet for banking and Insurance companies 5. Exhibit strong understanding of the concepts of Inflation Accounting and Human Resource Accounting
IV	HC18/4C/RHY	Research methodology	<ol style="list-style-type: none"> 1. Identify the overall process of designing a research study from its inception to its report. 2. Prepare comprehensive literature review for the study. 3. Compare the link between quantitative research questions and

			<p>data collection and how research questions are operationalized in educational practice and to know the steps involved in qualitative data collection.</p> <ol style="list-style-type: none"> 4. Know the various types of quantitative sampling and select the most appropriate methods to use. 5. Construct a coherent research proposal that includes an abstract, introduction, literature review, research questions, ethical considerations, and methodology.
IV	HC18/4C/CTS	Costing methods And techniques	 <ol style="list-style-type: none"> 1. Reconcile the profits of cost and financial accounts and finding out the reason for disagreement 2. Assess cost and profit of each job/Batch/Contract separately to find out which is more profitable. 3. Compare costs and revenue of different vehicles owned or hired to provide services catering to the needs of different industries. 4. Determine the allocation of manufacturing costs of a product for each stage of process during a given period 5. Compare Standards and analyze variances to take corrective decisions in case of deviations.
IV	HC18/4C/FLS	Financial markets and Services	<ol style="list-style-type: none"> 1. Discuss the functions of financial markets 2. Distinguish the various financial instruments and intermediaries and analyse the role of regulatory authorities in financial markets 3. Explain the various methods of trading in stock exchange 4. Evaluate the differences between various financial services such as hire purchase , leasing ,factoring , venture capital financing , leasing and mutual funds

			5. Explain the functions of credit rating agencies
IV	HC18/4C/CAB	Computer application In business	<ol style="list-style-type: none"> 1. Explain the various concepts in excel 2. Apply the various tools in SPSS 3. Use various accounting techniques in Tally. Compile stock groups, categories and items in Tally. 4. Prepare various reports 5. Understand the R programming.
V	HC18/5C/IP1	Income Tax And tax planning	<ol style="list-style-type: none"> 1. Explain the provisions of tax for various residential status of individuals 2. Apply critical thinking skills related to taxation of individuals under the head income from salaries and enable them to file returns on individual basis 3. Discuss income computation under the head “Income from House property” 4. Determine income under the head capital gains 5. Explain the provision of income tax act for computation of Income from other sources
V	HC18/5C/FMT	Financial management	<ol style="list-style-type: none"> 1. Identify the scope of financial Management and its relation with other disciplines. 2. Assess the cost of capital influencing Financing decisions and deciding the determinants of capital structure. 3. Analyze cash flows and risk involved by different Capital evaluation techniques. 4. Discuss the factors determining the dividend policy of a company. 5. Explain the need and determinants for working capital management .
V	HC18/5C/ADM	Accounting For decision making	<ol style="list-style-type: none"> 1. Apply the basic concepts of management accounting 2. Analyse and interpret financial statement with the help of ratio analysis 3. Compute and prepare cash flow statement and understand the concept

			<p>of fund flow</p> <ol style="list-style-type: none"> 4. Apply and analyse budgeting technique for forecasting 5. Compute Marginal costing
V	HC18/5C/AUG	Auditing	<ol style="list-style-type: none"> 1. Analyze the importance, objectives and different kinds of Auditing. 2. Explain on internal control, internal check and audit working paper and audit programme of the companies 3. Explain the Vouching And Verification Process in Auditing 4. Discuss knowledge on the provisions of the Companies Act relating to appointment, rights, duties and liabilities of an auditor. 5. Analyze on Classes of Investigation, EDP Audit and various field of Specialized Audit
V	HC18/5C/CYL	Company And limited liability Partnership laws	<ol style="list-style-type: none"> 1. Analyse and understand the provisions of Companies Act 2013 and its implications 2. Compare, Analyze and understand the significance of various legal documents of the company 3. Gain knowledge on the acquisition & termination of its members and related aspects 4. Able to formulate corporate governance tools pertaining to the structure of the board. 5. Gain knowledge on the concept and procedures involved in the various modes of winding up.
V	HC18/5C/ELD	Entrepreneurial development	<ol style="list-style-type: none"> 1. Explain the Concepts of Entrepreneurship and new initiatives promoted by GOI to boost Entrepreneurship . 2. Explain on the role of Women Entrepreneurs in economic growth and changing approaches in economic scenario for small scale entrepreneurs

			<p>and to inculcate Entrepreneurial skill.</p> <ol style="list-style-type: none"> 3. Plan, design, formulate and evaluate new business ideas through various Idea generation techniques and to formulate the plan 4. Discuss the special schemes offered by Government and funding institutions which renders institutional finance to entrepreneurs. 5. Outline on Entrepreneurial development programs, their role and relevance in organizing the same , E-Commerce and small enterprise
		Accounting standards	<ol style="list-style-type: none"> 1. Familiarise with the recent trends in Human resource Management 2. Understand the Job requirements and steps in succession planning 3. Describe the importance of staffing function for recruiting employees. 4. Conduct various levels of interview and evaluation tests in the process of selection 5. Develop a wide understanding on competency based training
VI	HC18/6C/IP2	Income Tax And tax planning	<ol style="list-style-type: none"> 1. Compute Income from Business 2. Explain set off and carry forward of losses of business, house property and capital gain 3. Explain the various deductions U/s sec 80c to 80 U.and assessment of individuals 4. Apply problem solving skills related to taxation of companies 5. Discuss the recent developments in Income tax Act
VI	HC18/6C/SPM	Security analysis and Portfolio management	<ol style="list-style-type: none"> 1. Discuss on various alternatives available for Investments and Behavioral Finance 2. Compute historical and expected returns, and identify the importance of risk-return relationship. 3. Explain investment management, capital market expectations and

			<p>forecasting market activity</p> <ol style="list-style-type: none"> 4. Explain the principles of modern portfolio theory and the effect of diversification on investment portfolios. 5. Demonstrate Knowledge on technical concept of CAPM and APM that matches the client's portfolio
VI	HC18/6C/ITL	Indirect Tax laws	<ol style="list-style-type: none"> 1. Identify the various types of Direct and Indirect Tax and its differences 2. Explain the procedural aspects of CGST, types of supply and input tax reversal. 3. Discuss the functional aspects of GST 4. Explain IGST Act and SGST Act 5. Discuss in detail the various concepts and types of customs Act.
VI	HC18/6C/OGB	Organisational behaviour	<ol style="list-style-type: none"> 1. Understand the need for Accounting Policies and applicability of Accounting Standards. 2. Understand the various components and requirements for presentation of financial statements. 3. Analyse the accounting treatment of assets of financial statements . 4. Discuss business combinations and accounting for corporate restructuring 5. Apply practical knowledge relating to analysis of financial statement
VI	HC18/6C/LSM	Logistics And supply Chain management	<ol style="list-style-type: none"> 1. Discuss the nature, importance and components of Logistics management. 2. Apply appropriate Logistics, concepts and techniques to improvise Supply chain operations. 3. Predict the issues, challenges and emerging technologies in logistics and supply chain management. 4. Explain the significance of material handling and to coordinate Activities of ware housing and distribution systems. 5. Identify the appropriate transportation

			network and legal aspects to be followed. Also knowing the importance of Performance measurement.
VI	HC18/6C/PRO	Project And viva voce	<ol style="list-style-type: none"> 1. Acquire general knowledge of varied subjects 2. Acquire the ability to apply statistical tools 3. Synthesize the collected data into written report 4. Demonstrate their presentation skills 5. Acquire skills to use internet resources independently



B.COM ACCOUNTING & FINANCE

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	AF18/1C/FIA	Financial Accounting	<ol style="list-style-type: none">1. Understand the fundamentals, check the arithmetical accuracy and rectify the errors.2. Prepare financial statements and ascertain profit or loss of sole proprietorship concerns.3. Analyse and prepare bank reconciliation statement and to compute claim for loss of stock.4. Compute depreciation under straight line and written down value method including change in method of depreciation as per AS-105. Ascertain profit or loss by preparing statement of affairs in single entry system and detect missing information by using conversion method.
I	AF18/1C/BOM	Business Organisation and Management	<ol style="list-style-type: none">1. Discuss the activities of Business and Differentiate between Trade, Commerce and Industry.2. Identify and differentiate various forms of business organisations.3. Apply management techniques to run the organisation effectively by using principles of Management.4. Demonstrate the role and functions of management by solving specific case studies.5. Outline the functions of management like staffing, directing, co-ordination and control.
II	AF18/2C/ADA	Advanced Accounting	<ol style="list-style-type: none">1. Prepare branch account for dependent branches under various methods.2. Apportion expenses, prepare departmental accounts and understand inter departmental transfers at cost and selling price.3. Compare hire purchase and installment system and understand accounting procedure for default and repossession of stock.

			<ol style="list-style-type: none"> 4. Prepare necessary accounts and balance sheet on admission, retirement and death of a partner 5. Understand dissolution accounting and apply rule of Garner Vs Murray in case of insolvency of partners.
II	AF18/2C/MEL	Mercantile Law	<ol style="list-style-type: none"> 1. Classify various types of contract and understand the rules relating to essential elements of a contract. 2. Understand various modes of performance and discharge of contract and remedies available for breach of contract. 3. Outline the legal provisions of bailment and pledge and termination of bailment. 4. Describe the rules regarding indemnity and guarantee and rights and discharge of surety. 5. Explain the rights and duties of buyer, unpaid seller and various rules of delivery.
III	AF18/3C/CA1	Corporate Accounting - I	<ol style="list-style-type: none"> 1. Understand the accounting procedure for issue of shares and underwriting. 2. Outline the accounting treatment for issue and redemption of Preference shares. 3. Acquire knowledge on different methods of issue and redemption of debentures. 4. Calculate the Purchase consideration for acquisition of Business and Profits prior to incorporation. 5. Prepare the Final Accounts of Joint stock Companies as per Revised Schedule VI.
III	AF18/3C/COA	Cost Accounting	<ol style="list-style-type: none"> 1. Acquire knowledge on fundamentals of Cost Accounting, Compare Cost accounting and Financial accounting and prepare cost sheet. 2. Prepare stores ledger Account by adopting different methods of valuing material issues and apply the techniques of level setting and EOQ in material cost. 3. Compute the labour cost, labour remuneration and incentives under different methods of wage payment. 4. Prepare primary and secondary overhead distribution summary and calculate machine hour rate. 5. Understand Unit costing, Process costing

			and the concept of Activity based costing.
III	AF18/3C/PRI	Principles of Insurance	<ol style="list-style-type: none"> 1. Discuss the principles and recent developments in insurance. 2. Outline regulatory functions of IRDAI. 3. Understand the types of fire policies and the procedure for claim. 4. Explain the premium calculation for different types of marine policies. 5. Identify the policies and procedure of motor insurance, burglary insurance, health insurance.
III	AF18/3C/PRM	Principles of Marketing	<ol style="list-style-type: none"> 1. Analyse the characteristics and segment market to position the product or services. 2. Discuss the process of developing a new product and various pricing strategies. 3. Outline the importance and impact of various promotion tools like Advertisement, sales promotion and personal selling. 4. Evaluate the various channels of distribution like direct marketing, wholesaler and retailer. 5. Understand consumer behaviour, decision making process and buying motives.
III	AF18/3A/BS1	Business Mathematics and Statistics – I	<ol style="list-style-type: none"> 1. Demonstrate the relations and verify the functions of sets. 2. Discuss and form number series or sequences. 3. Compute various types of measures of central tendency. 4. Select and apply Karl Pearson and Rank Correlation Coefficient. 5. Discuss the cause and effect impact between variables.
IV	AF18/4C/CA2	Corporate Accounting – II	<ol style="list-style-type: none"> 1. Determine the valuation of Goodwill and Shares as per AS26 and understand the basics of IND AS. 2. Acquire knowledge on accounting treatment for Mergers and Acquisition as per AS 14. 3. Understand capital reduction and prepare Liquidator's Final statement of Accounts. 4. Apply RBI regulations in preparation of Final Accounts of Banking Companies in India. 5. Apply IRDAI regulations in preparation of

			Revenue account of General Insurance Companies.
IV	AF18/4C/MAA	Management Accounting	<ol style="list-style-type: none"> 1. Acquire Knowledge on fundamentals of Management Accounting and prepare the comparative, common size statements and calculate trend percentages. 2. Compute, Analyse and interpret the Profitability, Financial and Turnover Ratios. 3. Construct the Cash flow Statement as per AS-3. 4. Draw up different types of Budgets – sales, production, cash, materials. 5. Apply Marginal costing techniques in key factor, Make or Buy decisions and product or sales mix decisions.
IV	AF18/4C/BTP	Banking Theory, Law & Practice	<ol style="list-style-type: none"> 1. Describe various types and functions of banking system in India. 2. Understand the functions of RBI and commercial banks. 3. Discuss the nature and uses of kinds of negotiable instruments. 4. Acquire knowledge on rights and obligations of banker and customer. 5. Understand the various modes of banking.
IV	AF18/4C/CAB	Computer Applications in Business (Practicals)	<ol style="list-style-type: none"> 1. Understand the various generations of computer and uses of various input and output devices. 2. Create academic and professional word documents, editing, text formatting and mail merge. 3. Utilise functions and apply formulas to perform various operations in spread sheet. 4. Apply animations, transition effect, and various designs to create presentation and relationship data base. 5. Prepare financial statements of a Company using Tally.
IV	AF18/4A/BS2	Business Mathematics and Statistics - II	<ol style="list-style-type: none"> 1. Describe the matrix operations. 2. Select and apply Simple Interest, Compound Interest and Annuities. 3. Construct the index numbers. 4. Understand time series and compute the trend analysis. 5. Calculate interpolation using Newton's and Lagrange methods.

V	AF18/5C/IT1	Income Tax – I	<ol style="list-style-type: none"> 1. Determine the residential status of various persons and incidence of tax 2. Understand the computation of various allowances and perquisites and determine taxable salary income. 3. Apply provisions to compute taxable income from let out and self-occupied house property. 4. Compute taxable income from business or profession by giving relevant deductions. 5. Determine Taxable Gain on transfer of long term and short term Capital Assets.
V	AF18/5C/FIM	Financial Markets	<ol style="list-style-type: none"> 1. Understand the concepts and structure of Financial system. 2. Identify and Describe various Money market instruments. 3. Describe the various capital market instruments and e-trading of securities. 4. Outline the players of Primary market. 5. Discuss the functions of Secondary market and SEBI.
V	AF18/5C/FMG	Financial Management	<ol style="list-style-type: none"> 1. Formulate financial decisions considering Risk and Return. 2. Identify and discuss the long term and short term sources of finance. 3. Compute the cost of debt, Equity, Preference share, retained earnings and Overall Cost of Capital. 4. Design an optimal capital structure for the firm. 5. Apply the concept of leverage in financial decision making.
V	AF18/5C/REM	Research Methodology	<ol style="list-style-type: none"> 1. Understand the research process. 2. Select and apply the sampling technique and method of data collection. 3. Utilize parametric tools – t-test, ANOVA. 4. Apply Chi-Square test. 5. Design a research report.
V	AF18/5E/BUE	Business Environment	<ol style="list-style-type: none"> 1. Explain the types of Business environment and environmental analysis. 2. Discuss the Development of Indian economy, New Industrial Policy and FEMA. 3. Identify and analyse the socio-cultural factors on development of Economy and Business.

			<ol style="list-style-type: none"> Outline the importance of Political system on the conduct of Business. Utilise innovative technological practices in Business to cope up with globalisation.
VI	AF18/6C/IT2	Income Tax – II	<ol style="list-style-type: none"> Compute taxable income from other source and apply set off, carry forward and clubbing provisions. Determine tax liability by allowing relevant deductions from gross total income of an individual. Compute taxable income and tax liability of firms and partners. Determine tax liability of a company and compute minimum alternate tax. Compute advance tax and analyse procedure for E- Assessment, E-Filing.
VI	AF18/6C/FIS	Financial Services	<ol style="list-style-type: none"> Discuss the concept and types of Financial services. Identify the services and functions of merchant banks. Understand the importance and types of leasing and working of debt securitization. Explain the working of venture capital, mutual funds and credit rating. Understand the factoring, forfaiting, consumer finance and credit scoring.
VI	AF18/6C/AFM	Advanced Financial Management	<ol style="list-style-type: none"> Understand capital budgeting through traditional and discounted cash flow techniques. Apply the techniques for Risk and Return in Computation of Capital Budgeting. Calculate the market price per share under Walter and Gordon Model. Select and apply techniques in computation of Working capital Requirement. Determine the cash and inventory needs of an organisation.
VI	AF18/6E/AUD	Auditing	<ol style="list-style-type: none"> Outline the audit planning, audit control and documentation. Describe vouching, window dressing and compare the internal control and internal audit. Understand the methods of valuation of assets, liabilities and inventories.

			<ol style="list-style-type: none"> Analyse the provisions for appointment, powers and liabilities of auditor. Demonstrate the auditing procedures for various service institutions and cost audit.
VI	AF18/6E/END	Entrepreneurial Development	<ol style="list-style-type: none"> Discuss the types, factors, functions and qualities of entrepreneurs. Identify the business opportunity, process for project appraisal and report. Outline the sources of funds for entrepreneurs. Discuss the role of government in organising EDP and various government schemes and subsidies. Describe start ups and discuss the role of women entrepreneurs and rural entrepreneurs.

BACHELOR OF BUSINESS ADMINISTRATION

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	BS18/1C/POM	Principles of Management	<ol style="list-style-type: none"> Develop an understanding of the functions of management and contributions made by management theorists to the field of scientific and modern management. Demonstrate critical thinking when presented with managerial problems and express their views and opinions on managerial issues by applying the concepts of planning and decision making Identify the factors influencing the design of organizational structure and the right span of control for effective functioning of an organization Identify and incorporate best staffing practices and apply principles of directing for hiring and managing employees Control and coordinate the work force in a systematic approach
I	BS18/1C/AM1	Accounting for Managers – I	<ol style="list-style-type: none"> Apply accounting concepts and accounting standards in practical situations Prepare Final accounts to ascertain profit

			<p>or loss of the business and its financial position</p> <ol style="list-style-type: none"> Critically analyze financial statements of the enterprise , vertically and horizontally for business decision making Identify the changes in working capital and Ascertain cash flows from operating, investing and financing activities of an enterprise during an accounting year Analyse the profitability, liquidity and solvency position of a firm through Financial, turnover and profitability ratios
I	BS18/1A/BSC	Business Communication	<ol style="list-style-type: none"> Utilize the principles of communication for effective business operations. Demonstrate written communication skills in appropriate business situation Prepare business reports, agenda and minutes of meetings. Demonstrate excellent presentation and negotiation skills in business. Utilize the latest technology for effective business communication.
I	BS18/1N/SBM	Small Business Management	<ol style="list-style-type: none"> Assess the feasibility of a project and establish a small enterprise. Utilize the knowledge on sources of finance to obtain financial assistance for their business Demonstrate the schemes available to assist MSME and also to form Self Help Groups
II	BS18/2C/AM2	Accounting for Managers – II	<ol style="list-style-type: none"> Exhibit the role of a manager by making strategic business decisions considering the internal and external environments. Utilize the concept of demand, elasticity of demand to identify the determinants of demand and forecast demand. Assess technically the possible ways of increasing the level of production. Create knowledge on different market structures and make the price and output decisions. Develop an understanding of the role of government and taxes in controlling inflation and deflation.
II	BS18/2C/MEC	Managerial	<ol style="list-style-type: none"> Understand the features of hardware,

		Economics	<p>software, operating systems and its functions and analyze its requirement for business purpose</p> <ol style="list-style-type: none"> 2. Apply word basic commands, editing and proofing tools, creating tables, changing layout and mail merge concept for creating and managing business documents and effective communication 3. Handle business data by applying the in built features of excel and use pivot tables for analyzing customer and sales data 4. Make use of logical, mathematical, text and look up functions for business decisions 5. Apply financial and statistical function of excel for financial forecast, project analysis and analysis of business data
II	BS18/2N/CSS	Corporate Soft skills	<ol style="list-style-type: none"> 1. Explain business and social etiquettes in the organization 2. Utilize stress and time management techniques for effective business. 3. Demonstrate excellent negotiation skills in dynamic corporate scenario
III	BS18/3C/ORB	Organizational Behaviour	<ol style="list-style-type: none"> 1. Apply theories and concepts of organizational behaviour in workplace to create an effective organisational environment 2. Analyze workplace behaviours from theoretical perspective of ability, learning, attitude and values 3. Determine the influence of perception, personality and emotions on workplace behaviour in order to exhibit positive behaviour and to create solutions in a challenging context 4. Create a conducive environment to facilitate group functioning, articulate conflict management competencies in managing and resolving conflicts 5. Identify forces of change and manage a planned organizational change and ways to create a positive organizational culture for effective functioning of an organisation
III	BS18/3C/PMG	Production Management	<ol style="list-style-type: none"> 1. Develop an understanding of the role of production manager and also select a

			<p>suitable production system.</p> <ol style="list-style-type: none"> Analyse and decide a good location for the plant and its layout. Demonstrate efficient planning and control of production activities. Develop strategies to ensure high quality products are manufactured and distributed. Identify the ways and means to attain a competitive edge in the market through effective method, materials and labour.
III	BS18/3C/MKM	Marketing Management	<ol style="list-style-type: none"> Identify the marketing functions, environment and segmentation for effective positioning of the products. Assess the factors influencing consumer behavior and apply recent marketing trends in business Develop new products and services that are consistent with evolving marketing needs. Formulate effective pricing policy and select an appropriate channel of distribution. Critically analyze the various promotional tools and formulate effective promotional strategies for success of the enterprise.
III	BS18/3C/EDT	Entrepreneurial Development	<ol style="list-style-type: none"> Understand the importance of entrepreneurship and are motivated to start an enterprise. Able to face the challenges of women entrepreneurs and develop entrepreneurial leadership skills. Identify business opportunities, Generate business ideas and prepare business plan Carry out feasibility studies for projects in hand Raise funds and avail assistance through various funding and support agencies for their finance
III	BS18/3A/BSM	Business Mathematics	<ol style="list-style-type: none"> Draw and use Venn diagrams to solve real problems in business. Perform elementary matrix operation and use matrices in business decision making. Utilise the concept of annuity and time value of money to make decisions in real life situations.

			<ol style="list-style-type: none"> 4. Use derivatives in marginal analysis and application of differential calculus to find the maxima and minima of a function. 5. Formulate complex business problems into a mathematical model to find solution.
IV	BS18/4C/BSL	Business Law	<ol style="list-style-type: none"> 1. Assess the elements of a valid contract in contract formation 2. Apply legal principles of performance, discharge and breach of contract in contractual dealings 3. Develop an understanding of the types of companies , role of promoters and legal rules relating to incorporation of company and employ it in formation of a company 4. Comply with the provisions relating to share certificate, share warrant, transfer and transmission of shares, borrowing powers of the company and identify the long term sources of funds to fulfill the financial requirements of a company 5. Identify the role of XBRL in the expeditious preparation of financial and non financial information, duties and responsibilities of board of directors
IV	BS18/4C/HRM	Human Resource Management	<ol style="list-style-type: none"> 1. Develop an understanding of the human resource functions and environment to manage human resource effectively. 2. Identify the human recourse requirement and select suitable work force. 3. Evaluate the performance of human resource and develop suitable training, development and career planning programs 4. Frame sound compensation policy for high employee retention 5. Develop effective promotion policy and reduce absenteeism and labour turnover.
IV	BS18/4C/MLM	Materials and Logistics Management	<ol style="list-style-type: none"> 1. Develop an understanding of the functions involved in Materials, Logistics and Supply chain management. 2. Implement and maintain effective material handling system and develop more competitive packaging for the products. 3. Identify proper inventory control

			<p>techniques and reduce the working capital requirements as well as render efficient service to the consumers.</p> <ol style="list-style-type: none"> Analyse and select suitable mode of transportation to dispatch the goods and make wise decisions relating to location and operation of warehouses. Decide effective distribution network through proper marketing channels and its control.
IV	BS18/4C/BST	Business Taxation	<ol style="list-style-type: none"> Develop an understanding of the concept of tax, different types of taxes and the tax system in India. Identify the challenges and the strengths of GST in India. Demonstrate the procedures of GST registration and its applicability Develop an understanding of the various taxes levied in foreign trade. Utilise various business opportunities under export promotion schemes in India, enabling to set up business in SEZ.
IV	BS18/4A/BSS	Business Statistics	<ol style="list-style-type: none"> Apply descriptive statistics in effective business decision making Ascertain cause and effect relationship between business factors and predict direction of business Analyse time series data to identify trend and seasonal variations to forecast and take business decisions Construct and compare index numbers to analyse business and economic activities Utilize statistical analysis in business projects to arrive at solutions
V	BS18/5C/RMT	Resource Management Techniques	<ol style="list-style-type: none"> Apply quantitative techniques to formulate business problems into linear programming problems for optimization of results. Utilise Assignment and transportation model to maximize profit and minimize cost in business. Use CPM and PERT to plan, schedule and control project activities. Propose the best strategy and predict how firms behave in a specific strategic situation

			5. Develop and apply systematic and analytical decision skills to determine the best choice using decision trees
V	BS18/5C/ECL	Economic Laws	<ol style="list-style-type: none"> 1. Demonstrate as vigilant consumers and apply Right to information Act in practical situations 2. Utilize FEMA provisions and Competition Act provisions in the business processes 3. Apply IPR concepts in business and obtain copyrights over business works 4. Obtain patents for business inventions and commercially utilize patents 5. Register trademarks of the enterprise and use them profitably.
V	BS18/5C/FMG	Financial Management	<ol style="list-style-type: none"> 1. Apply the concepts of financial management in contemporary business and determine optimum capital structure. 2. Develop knowledge on leverage and cost of capital enabling to arrange funds at minimum cost. 3. Applying capital budgeting techniques to take wise investment decision. 4. Develop knowledge on stability and determinants of dividends and take effective dividend decision to enhance investors confidence. 5. Determine and maintain optimal working capital.
V	BS18/5C/MIS	Management Information System	<ol style="list-style-type: none"> 1. Identify the role of information systems in business and manage internal and external business processes effectively 2. Evaluate complex situations and find solutions with expert knowledge on various support systems 3. Select, acquire and implement ERP software in their enterprises. Apply system development life cycle process in project development 4. Utilize DBMS concept to manage various databases of organisation 5. Employ tally accounting functions in handling business accounts and financial analysis
V	BS18/5E/RSM	Research Methodology	<ol style="list-style-type: none"> 1. Identify the importance of research and its application in business

			<ol style="list-style-type: none"> 2. Explain the steps in research process and design a research plan 3. Select appropriate data collection and sampling techniques for research projects in hand 4. Utilize different types of scaling techniques in research instruments for measurement of data 5. Prepare good research reports
V	BS18/5E/BTP	Banking Theory and Practice	<ol style="list-style-type: none"> 1. Develop an understanding of the banking system in India 2. Identify the functions and the role of Commercial Banks 3. Utilise negotiable instruments effectively in business. 4. Create an understanding of the credit control operations of the Central Bank 5. Utilize effectively the recent trends in banking to run business successfully.
V		Business Environment	<ol style="list-style-type: none"> 1. Develop knowledge on various factors influencing Business Environment 2. Use Economic and Non Economic Environment factors of Business 3. Create an understanding of types of economic systems 4. Develop an understanding on the relationship between business and social, cultural, technical environment 5. Identify strengths, weaknesses, opportunities and threats of Business to take effective business decisions
VI	BS18/6C/IRL	Industrial Relations and Labour Laws	<ol style="list-style-type: none"> 1. Use concepts in formulation of Business policies & discuss role of a Trade union in an enterprise. 2. Select a suitable grievance redressal model & disciplinary procedure in their enterprise. 3. Formulate effective collective Bargaining process 4. Apply dispute settlement procedure as laid down by ID Act 5. Plan Pay policies accommodating for EPF & ESI deductions.
VI	BS18/6C/IBS	International Business	<ol style="list-style-type: none"> 1. Critically analyze the problems in international business environment and successfully manage the multinational

			<p>enterprise.</p> <ol style="list-style-type: none"> 2. Enable to enter into international business having acquired knowledge on the various modes of entry. 3. Develop knowledge on the role of Global institutions and International business concepts to effectively manage multinational enterprise. 4. Take effective decisions in international finance and marketing functions./Take or formulate effective finance and marketing related decisions in international business 5. Manage international human resources and cross cultural differences effectively in global scenario.
VI	BS18/6C/BCG	Business Ethics & Corporate Governance	<ol style="list-style-type: none"> 1. Identify and analyze ethical issues in business to formulate business policies and strategies within ethical framework 2. Apply ethical principles in major functional areas of business 3. Formulate CSR Strategies/ programmes in accordance with the provisions of CSR under companies Act 4. Determine appropriate corporate governance theories and apply it to the Corporate governance structure 5. Comply with the legal norms of corporate governance in accordance with companies act 2013.
VI	BS18/6C/FSS	Financial Services	<ol style="list-style-type: none"> 1. Develop knowledge on the various types of financial services and the functions of capital market and SEBI. 2. Identify and utilize the services of Underwriters and Merchant bankers to raise funds in the capital market and Venture capitalists for financial assistance. 3. Utilise factoring, forfaiting and leasing services for their enterprises. 4. Assess and make wise investments in mutual funds and also get their credit worthiness evaluated for obtaining borrowings/investments. 5. Utilise Hire purchase, consumer loans and credit cards to make various purchases.

BACHELOR OF COMPUTER APPLICATIONS

SE M	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	CA18/1C/IPC	Introduction to Computers and Programming in C	<ol style="list-style-type: none"> 1. Identify the basics of programming languages 2. Analyze the fundamentals of digital logics 3. Demonstrate the basics of C language 4. Apply programming concepts related to arrays and functions 5. Use the concepts of structures, unions and files using C
I	CA18/1C/PR1	C Laboratory	<ol style="list-style-type: none"> 1. Analyze the execution of control structures using C Programs 2. Implement the concept of functions using C programs 3. Apply arrays and structures concepts in C Programs 4. Write programs using pointers in C language 5. Demonstrate file concepts using C language
I	CA18/1N/COA	Non-Major Elective : Office Automation	<ol style="list-style-type: none"> 1. Print letters and documents 2. Analyze tables and charts 3. Apply animations
II	CA18/2C/DSC	Data Structures and Programming in C++	<ol style="list-style-type: none"> 1. Design algorithms using data structures concepts 2. Implement data structure concepts like stacks, queues, trees and graphs 3. Identify the basic concepts in C++ 4. Apply concepts like virtual functions and polymorphisms 5. Explain about the uses of files in C++
II	CA18/2C/PR2	C++ and Data structures Laboratory	<ol style="list-style-type: none"> 1. Implement inheritance and polymorphisms concepts using C++ programs 2. Apply the concepts of constructors , virtual functions and operator overloading in programs 3. Design friend functions concepts 4. Demonstrate programs stack and queue concepts using C++ 5. Develop programs to implement singly, doubly linked list and tree concepts using

			C++
II	CA18/2N/WWH	Non-Major Elective : World Wide Web with HTML	<ol style="list-style-type: none"> 1. Describe the basic concepts of Internet programming and protocols used. 2. Create applications using HTML commands. 3. Develop applications using HTML Frames and Forms.
III	CA18/3C/CCG	Computer Graphics	<ol style="list-style-type: none"> 1. Utilize the basic components in computer graphics 2. Demonstrate various algorithms like line drawing and circle drawing 3. Apply 2D and 3D transformations 4. Learn viewing and clipping 5. Understand hidden surface and hidden line removal
III	CA18/3C/CVP	Visual Programming	<ol style="list-style-type: none"> 1. Use Graphical User Interface and using the IDE with its design and diagramming tools 2. Control Structures, elementary data structures, collection classes and Event-driven Programming. 3. Advanced controls like Flex Grid and Exception handling. 4. View and debug the Windows Forms, common controls, design-view, code view, class diagram view and create menu driven application. 5. Create application using Files and Streams, simple database usage
III	CA18/3C/RAO	RDBMS and ORACLE	<ol style="list-style-type: none"> 1. Discuss about DBMS and RDBMS concepts 2. Explain about DDL commands in SQL 3. Demonstrate DML commands using queries 4. Apply the concepts of PL/SQL programming 5. Design PL/SQL programs using triggers, procedures and functions
III	CA18/3A/CFA	Financial Accounting	<ol style="list-style-type: none"> 1. State the uses and users of accounting information 2. Able to record basic accounting transaction 3. Analyse, interpret and communicate the information contained in basic financial statements and also explain the limitations

			<ol style="list-style-type: none"> 4. Describe the main elements of financial accounting information – assets, liabilities, revenue and expenses 5. Compute the different types of depreciation and their purposes.
III	CA18/3C/PR3	VB and ORACLE Laboratory	<ol style="list-style-type: none"> 1. Analyze and write meaningful name for variables, controls and definition. 2. Design and develop the connectivity between the frontend and backend. 3. Apply the technique of changing the properties of the controls during runtime and design time. 4. Write and Execute the operations in a table such as add, delete, update, save and view. 5. Build reports.
III	CA18/3C/PR4	Computer Graphics using C Laboratory	<ol style="list-style-type: none"> 1. Create simple graphics applications 2. Analyze Geometric primitives 3. Demonstrate transformation of graphical images and pictures 4. Explain composite transformations on objects 5. Prepare clipping algorithm on lines
IV	CA18/4C/PJP	Programming in Java	<ol style="list-style-type: none"> 1. Discuss the basic oops concept, evaluation and implementation overview of java. 2. Design the applications using classes, inheritance, packages and interface. 3. Use the exception handling, multithreading and string handling concepts in various applications. 4. Demonstrate knowledge about I/O concepts in Java. 5. Perform applet programming designing HTML, Java Swing and Java Bean based programs.
IV	CA18/4C/COS	Operating System	<ol style="list-style-type: none"> 1. Analyze the structure of OS and basic architectural components involved in OS design 2. Apply the applications to run in parallel either using process or thread models 3. Various device and resource management techniques for timesharing and distributed systems 4. Understand the Mutual exclusion, Deadlock detection and agreement protocols of Distributed operating system 5. Interpret the mechanisms adopted for file

			system, directory and disk
IV	CA18/4C/CSA	Computer System Architecture	<ol style="list-style-type: none"> 1. Outline the detailed design of digital computer 2. Compare various instruction format and addressing modes 3. Discuss about pipeline processing 4. Describe the organization of input and output devices 5. Explain memory management techniques
IV	CA18/4A/CMA	Management Accounting	<ol style="list-style-type: none"> 1. Critically analyse and provide recommendations to improve the operations of organisations through the management tools. 2. Apply managerial accounting in such a way to demonstrate a clear understanding of ethical responsibilities. 3. Develop and apply standards and budgets for planning and controlling purposes. 4. Analyze various types of variances with their implication in standard costing. 5. Use incremental analysis to a range of business scenarios
IV	CA18/4C/PR5	Java Laboratory	<ol style="list-style-type: none"> 1. Understand concept of Object Oriented Programming & Java Programming constructs. 2. Use basic concepts of Java such as operators, classes, objects, inheritance, packages and Enumeration 3. Analyse the concept of exception handling and Input/output operations 4. Design the application of Java and Java applet 5. Develop the concept of Event Handling, Abstract windows toolkit, Java Bean and Java Swing.
IV	CA18/4C/PO1	Term paper and Seminar	<ol style="list-style-type: none"> 1. Identify , select and learn about a specific domain 2. Analyze, design and implement algorithms 3. Interpret results using Statistical measures
V	CA18/5C/DNT	Core : Dot Net Technologies	<ol style="list-style-type: none"> 1. Describe the basic structure of a VB.NET project and use main features of IDE 2. Debug and deploy VB.NET web applications 3. Design web applications using ASP.NET 4. Use ASP.NET controls in web applications.

			5. Create database driven ASP.NET web applications and web services
VV	CA18/5C/CSE	Core : Software Engineering	<ol style="list-style-type: none"> 1. Demonstrate the software engineering and its changing nature. 2. Gain knowledge about the various process models to develop the software. 3. Use different techniques to prepare SRS and system design. 4. Prepare the detailed design document where it is the blueprint for implementation. 5. Apply the different testing techniques currently employed in industries to improve the quality of the software.
V	CA18/5C/WEB	Core : Web Technologies	<ol style="list-style-type: none"> 1. Use knowledge of HTML and CSS code to create personal or business websites following current professional or industry standards. 2. Write applications that manipulate the Document Object Model to fetch and display information using jQuery. 3. Discuss the concepts of PHP and its advantages over other languages. 4. Use backup and restore a MYSQL database and to apply their knowledge to the creation of dynamic web applications such as content management, user registration and e-commerce. 5. Create and execute python programs and ability to perform the data manipulation using python.
V	CA18/5E/CDM	Elective I : Data Mining	<ol style="list-style-type: none"> 1. Create association rule in the transaction database 2. Evaluate the performance of different classification algorithms 3. Analyze various algorithms in clustering techniques 4. Create new algorithms for web content, structure and usage mining 5. Design a data mart or data warehouse for any organization
VI	CA18/5E/AIM	Elective I: AI and Machine Learning	<ol style="list-style-type: none"> 1. Demonstrate knowledge of the building blocks of Artificial Intelligence 2. Develop intelligent algorithm for constraint satisfaction problems 3. Represent knowledge using predicate logic

			<ol style="list-style-type: none"> 4. Got knowledge about the basic concepts of building Expert system 5. Analyze and design an Expert system
VI	CA18/5C/PR6	Practical VI : Dot Net Laboratory	<ol style="list-style-type: none"> 1. Use the IDE Framework of .Net. 2. Able to design applications using standard .net controls. 3. Create user interactive web pages using .Net. 4. Apply simple data binding applications using ADO.Net connectivity. 5. Create database driven .Net web applications and web services.
VI	CA18/5C/PR7	Practical VII : Web Technology Laboratory	<ol style="list-style-type: none"> 1. Describe the basic HTML commands, hyperlinks and Cascading Style sheets. 2. Apply scripting languages in HTML document to add interactive components to web pages. 3. Illustrate the web PHP concept to create dynamic web pages. 4. Apply MySQL in PHP page to create interactive web pages. 5. Explain the Numbers, Math functions, Strings, List, Tuples and Dictionaries in Python
VI	CA18/6C/DCN	Core: Data Communications and networking	<ol style="list-style-type: none"> 1. Compare and contrast LAN and WAN in terms of Characteristics and functionalities 2. Discuss the differences between cyclic redundancy check and checksum in terms of performance and implementation 3. Examine the features and functions of multiplexing and switching 4. Explain the role of ATM and ISDN Layers in architecture 5. Identify various types of internetworking devices and their features
VI	CA18/6C/CCT	Core: Computing Technologies	<ol style="list-style-type: none"> 1. Describe the concept of virtualization and its management. 2. Identify the architecture, infrastructure and delivery models of cloud computing 3. Illustrate the application of telecommunication systems in wireless networks. 4. Determine the functionality of MAC, network layer and identify a routing protocol for a given Ad hoc network. 5. Able to understand and explain the basics of

			Satellite Systems.
VI	CA18/6C/CMM	Core: Multimedia	<ol style="list-style-type: none"> 1. Gain a working knowledge of Photoshop and develop their skills in editing and altering photographs for through a basic understanding of the tool bar, layers, and the adjustments panel. 2. Able to perform the various tools for image manipulation in Photoshop. 3. Apply various flash tools to design the environment to implement the animation. 4. Demonstrate the ability to effectively utilize the timeline and motion-tween affects to produce animation. 5. Utilize Action Script to produce an interactive animation.
VI	CA18/6E/IOT	Elective II : Internet of things	<ol style="list-style-type: none"> 1. Apply the concepts of IOT. 2. Analyze and evaluate protocol used in IOT. 3. Able to design the IOT based on cloud computing infrastructure. 4. Design a simple IoT system made up of sensors, wireless network connection, data analytics and display/actuators, and write the necessary control software 5. Understand the physical design of IOT and apply IOT to different Applications. .
VI	CA18/6E/CCS	Elective II : Cyber Security	<ol style="list-style-type: none"> 1. Analyze about the information security and risk analysis. 2. Identify the threats, attacks, vulnerabilities and countermeasures in various applications. 3. Illustrate the concept of various security threats in E-commerce. 4. Develop secure information system in various phases of information system development. 5. Describe about the information security laws and policies.
VI	CA18/6C/PO2	Internship and Mini Project	<ol style="list-style-type: none"> 1. Identify, select and learn about a specific domain 2. Analyze, design and implement algorithms 3. Interpret results using Statistical measures
	CA18/6C/PR8	Multimedia Laboratory	<ol style="list-style-type: none"> 1. Design layouts for web pages, pages adverts, brochures, cd covers, Package designing. 2. Able to repairs the photo using different tools in photoshop. 3. Create a motion tween, guided motion

			<p>tween and shape tween.</p> <ol style="list-style-type: none"> 4. Create a flash application to scroll text with in a text box, button and ripple effect. 5. Design, create, edit and manipulates animation using several animation tools and techniques
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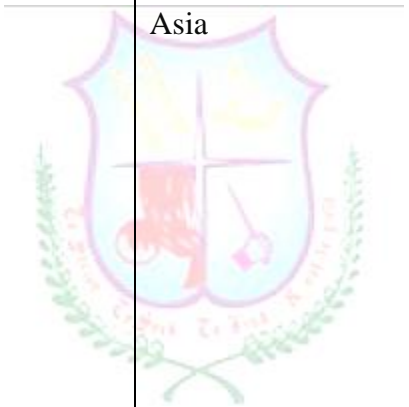
ETHIRAJ COLLEGE FOR WOMEN (AUTONOMOUS)

COURSE OUTCOMES



MA ENGLISH

SEMESTER	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	2P18/1C/BRL	CORE-I: British Literature 16th -19th Century	<ol style="list-style-type: none"> 1. Demonstrate an in depth knowledge of the literary history of Britain. 2. Read independently texts of British Literature from the sixteenth to the nineteenth centuries 3. Engage critically with representative writings in relation to their social, cultural and political milieu. 4. Critically apply relevant forms and concepts. 5. Discuss the social, political and cultural issues reflected in British Literature
I	2P18/1C/TWE	CORE – II Indian Literature In English	<ol style="list-style-type: none"> 1. Identify the major works of Indian Literature 2. Analyse the representative literary texts of various periods and genres 3. Discuss the social, political and cultural issues reflected in Indian writing in English 4. Demonstrate an understanding of the various themes presented in Indian literature 5. Describe the characteristics of Indian sensibility

I	2P18/1C/LCR	CORE – III Literary Criticism	<ol style="list-style-type: none"> 1. Demonstrate a knowledge of concepts in Indian and Western poetics 2. Interpret texts analyze them in the light of criticism. 3. Recognize the shift from liberal humanist paradigm towards Theory. 4. Display an advanced level of critical and analytical skills. 5. Extend knowledge of criticism to other artistic expressions
I	2P18/1C/LFA	CORE – IV Literatures From Asia 	<ol style="list-style-type: none"> 1. Critically read representative literary texts from these regions as cultural texts. 2. Identify the similarities and differences among Asian literatures to appreciate difference 3. Demonstrate an understanding of the universal factors of social realities of this region 4. Relate to cultural and social values of a variety of cultures 5. Extend their knowledge of this region to discuss larger global concerns with sensitivity.
I	2P18/1E/JAD	ELECTIVE-I Journalism And Advertisement	<ol style="list-style-type: none"> 1. Understand the basic tenets of Journalism 2. Associate with the news media and forms of journalistic writing

			<ol style="list-style-type: none"> 3. Apply and utilize the prior language skills to advertising and journalism 4. The specific knowledge of the course will enhance in producing a creative journal 5. Analyze the social issues relevant to the society and sensitize through their professional skills in this field
II	2P18/2C/BRL	CORE – British Literature 20th Century	<ol style="list-style-type: none"> 1. Identify and relate the changing trends in British literary expressions during the twentieth century. 2. Demonstrate an awareness of the major movements in art and extend this understanding to literary texts. 3. Engage critically with representative writings in relation to their socio-cultural political milieu. 4. Demonstrate the skill to apply critical tools to interpret texts. 5. Discuss the social, political and cultural issues reflected in British Literature

II	2P18/2C/ILT	CORE – VI Indian Literatures In Translation	<ol style="list-style-type: none"> 1. Identify the translated works from the various regions of India 2. Analyse the distinctive nature of each region and its literature 3. Demonstrate an understanding of the various themes highlighted by the vernacular writers 4. Discuss the social, political and cultural issues reflected in Indian Literatures in Translation 5. Critique limitations in translation and to translate works from Indian Languages
II	2P18/2C/AML	CORE –VII American Literature 20th Century	<ol style="list-style-type: none"> 1. Identify the themes and techniques of 20th century American Literature 2. Interpret and critically analyse the works of representative writers of 20th century America 3. Demonstrate an exhaustive knowledge of trends and movements of 20th American Literature and the cultural and political history of America 4. To relate the social, historical, cultural aspects of 20th century America to American Literature 5. Comparing and contrast 20th century

			American Literature to literatures of other nations.
II	2P18/2C/LTH	CORE – Literary Theory	<ol style="list-style-type: none"> 1. Demonstrate familiarity with the history of literary theory in the West, including prominent theorists and critics, important schools and movements, and the historical and cultural contexts relevant to those theories. 2. Demonstrate an understanding of key concepts in literary theory. 3. Analyse literary and other cultural texts using theoretical concepts. 4. Display an advanced level of critical and analytical skills. 5. Extend the knowledge acquired to other domains of knowledge.
II	2P18/2E/CE D	Extra Disciplinary Elective- I Copy Editing	<ol style="list-style-type: none"> 1. Understand the basics of copyediting, differentiate between hard and soft copy 2. Acquire basics skills of Copyediting and learn the Grammatical rules of the English language 3. Apply the basics of Proof reading and proof-reading symbols based on the in house style

			<ol style="list-style-type: none"> Utilize the knowledge into prior skills of computer into editing online Analyse practice passage for better skills enhancement in this industry-oriented paper
II	2P18/2S/CSK	Soft Skills II - Communication Skills	<ol style="list-style-type: none"> Understand the role of communication in professional success. Develop awareness of appropriate communication strategies. Analyze a variety of communication acts with reference to written and oral skills. Prepare and present messages with a specific intent.
III	2P18/3C/SHK	Core –Shakespeare	<ol style="list-style-type: none"> Examine Shakespeare's plays to appreciate his skill as a playwright and his ideological position. Demonstrate comprehensive knowledge of the critical views and aesthetic positions held by critics. Critically analyse the plays with contemporary critical frameworks. Identify and appreciate the nuances of the multicultural performance traditions of Shakespeare around

			<p>the world.</p> <p>5. Transcreate and adapt Shakespeare's plays</p>
III	2P18/3C/PC1	<p>CORE – Postcolonial Literature-I</p> <p>Africa, Australia & the Carribean</p>	<ol style="list-style-type: none"> 1. Understand and discuss the background of Postcolonial literature. 2. Analyse the Postcolonial concepts and themes of Postcolonial poetry. 3. Understand and critique the current political and social issues of the West Indies, Australia and African countries through the prescribed texts. 4. Evaluate and compare the perspectives of the writers through Postcolonial fiction 5. Identify and assess the current trends and the changing culture of Postcolonial world through the literary texts.

III	2P18/3C/LAL	Language And Linguistics	<ol style="list-style-type: none"> 1. Understand the language origin and differentiate between animal and human language 2. Demonstrate a fair knowledge of nature of language and its functions 3. Apply the linguistic form to language use and master syntax, semantics and pragmatics 4. Analyse the various aspects of linguistics and chose the field of study for higher learning 5. Extrapolate the knowledge of Applied Linguistics in real life situation
III	2P18/3E/FFT	Elective II– Feminism And Feminist Theories	<ol style="list-style-type: none"> 1. Demonstrate in depth knowledge of the developments in feminist thought. 2. Utilize feminist methodological and theoretical approaches to examine and critique literary works 3. Analyse gender and sexuality as complex systems of power that are structured by race, ethnicity, nation, and class 4. Respond sensitively to the complexity of social and biological constructions of manhood and womanhood in real life scenario.

			<ol style="list-style-type: none"> 5. Extend the knowledge of feminist perspective to other representations.
III	2P18/3E/NAL	Introduction To Native American Literature	<ol style="list-style-type: none"> 1. Understand and discuss the history and heritage of the Indigenous people of America 2. Analyse the themes and views of the literature of the Native Americans poetry 3. Discuss the current political and social issues of the Native Americans through the prescribed texts. 4. Compare and critique the perspectives of the writers through the Native American fiction 5. Identify and assess the current trends and the changing culture of the Native Americans
III	2P18/3E/RDS	Extra Disciplinary Elective- Reading Skills	<ol style="list-style-type: none"> 1. Utilize different techniques of reading. 2. Read aloud to communicate effectively 3. Discuss ideas presented in the texts. 4. Classify, compare and analyse different texts 5. Write with clarity about texts read and analysed.
III	2P/3S/LSK	Soft Skills- Leadership Skills	<ol style="list-style-type: none"> 1. Demonstrate an understanding of leadership qualities 2. Identify the different aspects of leadership. 3. Exhibit their mastery

			<p>in Body language and Non Verbal Communication</p> <ol style="list-style-type: none"> Master negotiation skills Will be able to analyse organizational behavior, Conflicts and entrepreneurship skills
IV	2P18/4C/EUL	CORE : XII European Literature	<ol style="list-style-type: none"> Understand the basic traits of European Literature Read, interpret and analyse the works of representative writers of Europe Demonstrate a thorough knowledge of the aesthetic and societal norms of a few European countries Will be able to write on European sensibilities, ideals and concepts and their impact on Literature Appreciate different cultures and polemics about human relationship
IV	2P18/4C/PC2	CORE IV – Postcolonial Literature-II Canada And New Zealand	<ol style="list-style-type: none"> Understand and apply the Postcolonial concepts and theories of Canadian and New Zealand literature to various literary texts. Analyse the background and history of the Indigenous tribes of Canada and New Zealand Identify and

			<p>assess the current political and social issues of New Zealand and Canada through the literary texts.</p> <ol style="list-style-type: none"> 4. Compare and critique the perspectives of the writers through the works of fiction 5. Identify and discuss the current trends of multiculturalism and the changing culture through the different genres prescribed for study.
IV	2P18/4C/ELT	ELT	 <ol style="list-style-type: none"> 1. Demonstrate a thorough knowledge of the place of English in India 2. Critically evaluate the issues connected with English Language Teaching 3. Exhibit the skill of teaching LSRW skills 4. Identify and describe the different methods of teaching English language and literature 5. Display a working knowledge of the use of technology in ELT
IV	2P18/4C/PRO	Project	<ol style="list-style-type: none"> 1. Demonstrate the ability to understand the area of research and gather relevant data 2. Apply rules of basic research methodology and interpret the data 3. Demonstrate the ability to analyse,

			integrate and create a cohesive argument
IV	2P18/4E/GES	General Essay	<ol style="list-style-type: none"> 1. Demonstrate an understanding of the literature of Britain, America and India 2. Apply criticism to Shakespeare's works 3. Differentiate the English Language Teaching methods, materials and approaches 4. Infer specific theories to any literary text 5. Compare and contrast various literatures of the world
IV	2P18/4E/WFS	Elective V- Writing For The Screen	<ol style="list-style-type: none"> 1. Appreciate different aspects of screen writing 2. Write screenplay for a story 3. Question ideas presented in movies and documentaries. 4. Watch films more analytically and identify thematic concerns and the way they are expressed 5. Career adoption and develop a flair for creative writing
IV	2P/4E/TLS	Elective- Translation Studies	<ol style="list-style-type: none"> 1. Define translation as an academic discipline and display knowledge of research issues, recent approaches and current problems in translation methods. 2. Recognise the

			<p>role of translation and interpreting in solving interlingual and intercultural communication problems.</p> <ol style="list-style-type: none"> 3. Use language properly including language patterning, textual organisation and the semiotics of verbal and non-verbal communication to translate texts. 4. Effectively employ their knowledge of the nuances of translation to translate texts from any regional language into English. 5. Translate literary texts
IV	2P/4S/ISK	Soft Skills IV – Interview Skills	<ol style="list-style-type: none"> 1. Understand the purpose of interviews. 2. Be aware of the processes involved in different types of interviews. 3. Obtain important tips on preparing for the professional interview. 4. Articulate the importance of self presentation.

MA ECONOMICS

SEMESTER	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	3P18/1C/AMT// 8P18/1C/AMT	Advanced Micro Economic Theory	<ol style="list-style-type: none"> 1. Summarize the models related to consumer behaviour 2. Design models related to firm's profit maximizing strategies 3. Gain knowledge on long run behaviour of firms 4. Explain general equilibrium model in relation to allocation of resources 5. Explain theories related to choice and uncertainty.
I	3P18/1C/PUE	Public Economics	<ol style="list-style-type: none"> 1. Describe the importance of Public Finance 2. Classify externalities and distortions in equilibrium 3. Explore the role of Public Expenditure in Economic Development 4. Examine the importance of Federal Finance and the role of Finance Commission 5. Identify the methods adopted by economy in relation to Resource Allocation
I	3P18/1C/MFE// 8P18/1C/MFE	Mathematics for Economists	<ol style="list-style-type: none"> 1. Interpret the transformation of a Matrix 2. Solve system of equations 3. Gain Knowledge to use optimization techniques 4. Apply differential equations in Economics 5. Apply difference equations in Economics
I	3P18/1C/SFE// 8P18/1C/SFE	Statistical Methods for Economists	<ol style="list-style-type: none"> 1. Estimate value of unknowns 2. Outline the fundamentals and basic rules of probability that help in decision making. 3. Calculate and interpret Correlation and regression coefficients

			<ol style="list-style-type: none"> 4. Apply Univariate and Multivariate techniques. 5. Acquire knowledge on vital statistics that would equip students to calculate CDR,SDR,IMR,MMR and other vital indicators
I	3P18/1E1/ FNE// 8P18/1E1/ FNE	Financial Economics	<ol style="list-style-type: none"> 1. Assess the importance of Capital and Money market. 2. Have an insight about the secondary market in India. 3. Examine the role of intermediaries in the securities market. 4. Discuss the role of securities in secondary market. 5. Explain the various types of investment in secondary market.
II	3P18/2C/MEA// 8P18/2C/MEA	 Macro Economic Theory and Analysis	<ol style="list-style-type: none"> 1. Compare and contrast the Classical and Keynesian perspectives with regard to Income and Employment determinants. 2. Interpret theories of consumption and working of the multiplier. 3. Gain deeper understanding on general disequilibrium theories with regard to failure of money market. 4. Relate the theories of Business cycles to understand the working of economies. 5. Analyse the differences between investment and Consumption goods.
II	3P18/2C/HES	Health Economics	<ol style="list-style-type: none"> 1. Compare National and International Health sector and the Indian National Health Policy. 2. Identify Resource Allocation and Financing in Health Sector. 3. Analyse cost and benefit of Health Services. 4. Evaluate the importance of Alternative systems of medicine and growth of medical tourism. 5. Assess the behaviour of stakeholders in the health sector
II	3P18/2C/ECM// 8P18/2C/ECM	Econometric Methods	<ol style="list-style-type: none"> 1. Use the least squares method in determining relationships among

			<p>different variables</p> <ol style="list-style-type: none"> 2. Examine the meaning and applicability of dummy variables 3. Estimate the linear probability models and the role of lags 4. Gain in-depth knowledge in Simultaneous equation models 5. Recall the basic methods of time series data and dynamic models
II	3P18/2C/SCA// 8P18/2C/SCA	Statistics with Computer Applications	<ol style="list-style-type: none"> 1. Perform test of Hypothesis and estimate Mean and Proportions using confidence intervals 2. Construct Point and Interval estimates and the properties of estimators 3. Apply test of Hypotheses and use Non-Parametric test 4. Construct and conduct F-test, and Analysis of Variance and interpret the results obtained 5. Acquire an In-depth knowledge on Ms-Excel and SPSS packages
II	3P18/2E2/MGE// 8P18/2E2/MGE	Managerial Economics	<ol style="list-style-type: none"> 1. Explain the models and analyse case studies 2. Assess the various methods of inventory control 3. Discuss the role played by Government in market economy. 4. Analyse the risks involved in projects 5. Identify Economic and Business forecasting techniques
II	3P18/2E/ HCM	Health Care Management	<ol style="list-style-type: none"> 1. Discover the importance of health as a component of human resource development and the scope of health management 2. Summarize the importance of Health Education and its planning 3. Identify the importance of preventive and curative care 4. Appraise the recent trends in health insurance 5. Evaluate the growth of medical

			tourism in India
III	3P18/3C/IEY// 8P18/3C/IEY	Indian Economy	<ol style="list-style-type: none"> 1. Discuss the indicators of growth and the latest methods of farming with food management and food security. 2. Review the status of economic farming in India. 3. Identify the challenges of agricultural sector. 4. Appraise the role of the industries in the current scenario. 5. Analyse the impact of FDI on the Indian Economy.
III	3P18/3C/MOE// 8P18/3C/MOE	Monetary Economics	<ol style="list-style-type: none"> 1. Examine the latest developments in theories of demand for money. 2. Quantify the relationship between money supply and price. 3. Assess the financial strength of the commercial banks. 4. Appraise the role of financial and non-banking financial intermediaries. 5. Analyse the recent monetary policy changes and its impact on Indian economy.
III	3P18/3C/RMC// 8P18/3C/RMC	Research Methodology and Computer Applications in Economics	<ol style="list-style-type: none"> 1. Identify the research problem and research process scientifically. 2. List the various methods and sources of collecting data. 3. Explore the software tools in data maintenance and operations. 4. Apply statistical tools in analyzing the project report. 5. Apply software in conducting research in economics.
III	3P18/3E3/ECS	Economics of Social Issues	<ol style="list-style-type: none"> 1. Outline the social doctrines of economic thinkers 2. Analyse global poverty and its remedial measures 3. Evaluate the impact of unemployment and the role of self-help groups 4. Identify the vital parameters relating to health and human capital 5. Develop awareness about black

			money and cyber crimes
III	3P18/3E4/ EIS	Economics of Infrastructure	<ol style="list-style-type: none"> 1. Explain the basic concepts in Infrastructure 2. Assess the Structure of Indian Transport System 3. Evaluate the importance of energy sector 4. Analyze the role of public and private sector 5. Review the Global Perspective of Infrastructure
III	3P18/3E/HAD	Hospital Administration	<ol style="list-style-type: none"> 1. Identify the challenges in hospital administration 2. Apply the accounting principles in the budgeting process. 3. Assess the importance of human resource planning. 4. Identify the importance of communication 5. Appraise medical ethics.
III	3P18/3S/YML// 8P18/3S/YML	Yoga and Meditation for Better Living	<ol style="list-style-type: none"> 1. Synthesize on theoretical aspects of Asanas and Pranayama techniques 2. Rejuvenate body & mind through meditation 3. Practice simple exercises based on Asanas and Mudras
IV	3P18/4C/EGD// 8P18/4C/EGD	Economics of Growth and Development	<ol style="list-style-type: none"> 1. Compare the various development indices and Marco Economic indicators 2. Critically review various theories of growth 3. Analyse efficiently various theories of development 4. Make choice in techniques of production 5. Assess the concept of Sustainable Development & Growth oriented strategies.
IV	3P18/4C/INE// 8P18/4C/INE	International Economics	<ol style="list-style-type: none"> 1. Interpret the theories of international trade. 2. Discuss the concept of terms of trade and various institutional tools

			<ol style="list-style-type: none"> 3. Explain the determination of exchange rate 4. Appraise the relationship between foreign direct investment and economic growth. 5. Explore the role of various institutions in facilitating trade between countries.
IV	3P18/4C/ENE// 8P18/4C/ENE	Environmental Economics	<ol style="list-style-type: none"> 1. Identify core concepts in understanding the nature of Environmental problems. 2. Discuss the concept of optimal allocation and reasons for market failure. 3. Analyze theoretical and empirical research in environmental and natural resource Economics. 4. Suggest policies to solve Environmental issues through Economic theory. 5. Assess the extent of damage due to pollution and evaluate the current practices adopted in environmental protection.
IV	3P18/4E5/DEY	Demography	<ol style="list-style-type: none"> 1. List the various concepts in demography 2. Analyse the trends in population and its demographic effects. 3. Gain knowledge on various concepts of fertility and methods of population projection. 4. Get an insight on trends of migration and urbanization. 5. Assess the importance of demographic database and new population policy in India.
IV	3P18/4S/EMS// 8P18/4S/EMS	Employability Skills	<ol style="list-style-type: none"> 1. Acquire basic employability skills. 2. Have an insight into cognitive and retention skills 3. Enhance personal skills


MA HISTORY

SEMESTER	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	4P18/1C/SCI	Core 1 Social and Cultural History of India	<ol style="list-style-type: none"> 1. Evaluate the ancient Indian society and culture. 2. Analyses changes in the political front. 3. Assess the importance of South Indian society and culture. 4. Critically assesses the influence of foreign culture on Indian society. 5. Demonstrates social and political developments in the modern period.
I	4P18/1C/CHI	Core 2 Constitutional History of India	<ol style="list-style-type: none"> 1. Identify socio-political issues and origin of Indian Constitution. 2. Critically analyses laws under British East India Company and its impact in the current situation. 3. Assess political developments and challenges under the British Crown 4. Revise on Constitutional reforms in pre-Independence phase. 5. Discuss formation of contemporary Indian law.
I	4P18/1C/WOC	Core 3 World Civilizations	<ol style="list-style-type: none"> 1. Identify ancient culture and civilization of Egypt. 2. Critically analyses society and culture in ancient Mesopotamia. 3. Explain the developments in ancient Chinese society, polity and culture. 4. Assess the growth of Egyptian society and promotes analysis of contemporary issues. 5. Evaluate Roman civilization and motivates to challenge ancient laws and system.
I	4P18/1C/HEU	Core 4 History of Europe	<ol style="list-style-type: none"> 1. Discuss on the European polity and society.

		1815-1945	<ol style="list-style-type: none"> Analyses European political strategies and the causes of wars. Assess developments and challenges in Germany. Evaluate historical events in Italy and its impact on the world. Demonstrate on challenges of the contemporary world.
I	4P18/1E1/ARC	Elective 1 Archaeology	<ol style="list-style-type: none"> Outline Pre-history, its discoveries and studies in present scenario. Identify competent global views and methods in the study of pre-historic society and culture. Discuss use of contemporary Sciences in study of pre-history. Utilize employability skills through acquisition of knowledge on techniques used to unearth Pre-history. Critically analyse on the growth of contemporary Archaeology.
II	4P18/2C/SCT	Core 5 Social and Cultural History of Tamil Nadu	<ol style="list-style-type: none"> Outline socio-political, economic and cultural history of ancient Tamil Nadu. Assess developments in Art culture, polity and economy of Tamilaham during Pallava regime. Analyse socio-economic and cultural developments in Chola period and encourages appreciating their skills. Discuss skills of Pandyas and challenge contemporary issues in Tamil Nadu. Enhance ethical values and interests in politics and social welfare.
II	4P18/2C/EHI	Core 6 Economic History of India	<ol style="list-style-type: none"> Identify the growth of pre-historic society through economy. Analyse polity, economy and challenges in ancient India.

			<ol style="list-style-type: none"> Discuss changes in economic policies and its challenges in the medieval period. Critically look British Indian economic policies and its impacts. Assess the contemporary economic situation.
II	4P18/2C/ICR	Core 7 India under Company Rule	<ol style="list-style-type: none"> Explain advent of Modernity and the resulting changes on Indian society. Critically evaluate the British administration and its impacts on the Indian, society, economy and culture. Analyse challenges to foreign system by Indians. Evaluate the power of local Indian rulers and the impact of their struggle against foreign rule. Demonstrate on Indian socio-economic and political situation and the struggle for rights in British India.
II	4P18/2C/HCI	Core 8 History of China and Japan	<ol style="list-style-type: none"> Compare global issues like imperialism and wars, and reflects on its impacts on the society. Identify Capitalist and Communist influences in China and the resulting impacts on its society. Analyse political strategies of Japan and its position in World Wars. Use a global perspective on the struggle for power and helps analyse the socio-political and economic impact of World Wars. Deliver quality information on contemporary status of China and Japan.
II	4P18/2E2/MUS	Elective 2 Museology	<ol style="list-style-type: none"> Utilize knowledge on Museums and their benefits.

			<ol style="list-style-type: none"> 2. Discuss Museum Management and its benefits. 3. Assess global legislative measures and emphasize on the need for Museum conservation. 4. Apply skills for employability by promoting Tourism in Museums. 5. Identify select Museums in India, and provides hands-on experience in Museum Conservation through internships.
II	4P18/2E1/HCE	Extra Disciplinary Elective 1 History for Competitive Exams	<ol style="list-style-type: none"> 1. Explain the Indian civilization and assess the development of society, polity and culture in the ancient period. 2. Identify the shift in culture, polity and economy in Medieval India. 3. Critically assess British policies in India and the social response of Indians towards them. 4. Compare the ancient and medieval world. 5. Analyse the contemporary world in relation to its developments and challenges.
III	4P18/3C/COW	Core 9 Contemporary World	<ol style="list-style-type: none"> 1. Identify contemporary issues in the world and enlightens on the role of UNO in promoting peace. 2. Discuss the bipolar situation after World Wars, and the global consequences of Cold War. 3. Assess the post cold war politics and the fight for Nationalism across the world. 4. Compare regional associations in the world and helps to evaluate their role in developments and in fighting common problems. 5. Analyse major issues in contemporary world politics.
III	4P18/3C/WPT	Core 10	<ol style="list-style-type: none"> 1. Analyse ancient Greek society

		Western Political Thought	<p>and to appreciate the origin of political institutions and concepts like Polity, Justice and Equality.</p> <ol style="list-style-type: none"> Identify historical background of the Romans and appreciates contributions of its political thinkers. Explain popular political concepts and theories across the world. Assess the Utilitarian and Dialectic traditions. Discuss Communist philosophy and the struggle to establish a class-less society.
III	4P18/3C/NIA	Core 11 Nationalism in Asia 	<ol style="list-style-type: none"> Identify the strategic location of Asia and the resulting struggle due to the arrival of Europeans in the continent. Explain the events that led to rise of Nationalism in Turkey, Israel and Palestine. Discuss the socio-political and economic situation in Iran and Iraq and helps analyse their contemporary struggles. Critically analyse the struggle for Nationalism in Burma and Vietnam. Evaluate the foreign political set up in Indonesia, Malaya and Philippines and to assess the impact of Nationalism in these regions.
III	4P18/3E3/FMI	Elective 3 Freedom Movement in India	<ol style="list-style-type: none"> Analyse the political and economic causes for nationalism in India. Critically look at the British administrative policies and enables analysis of the Indian struggle through political associations. Assess the emergence of mass movements and anti-British activities.

			<ol style="list-style-type: none"> Evaluate the Indian society in various political movements and wars. Demonstrate on Indian Independence struggle and the resulting achievements.
III	4P18/3E4/ARK	Elective 4 Archives Keeping	<ol style="list-style-type: none"> Identify the concept of archives and helps understand its importance in History. Discuss Archival Organizations at international and national levels. Explain the administration of archives and inculcates knowledge on the preservation of records. Utilize skills of record management. Outline knowledge on Private Archives.
III	4P18/3E2/GKC	Extra Disciplinary Elective 2 General Knowledge for Competitive Exams	<ol style="list-style-type: none"> Discuss current global affairs. Explain History of India and the World. Utilize Geographical knowledge of India and the world. Analyse Indian politics and history of the Indian Government. Assess the socio-economic developments in India.
III	4P18/3S/HOC	Soft Skill 3 History of Chennai	<ol style="list-style-type: none"> Identify strategic location of Chennai, discusses its origin and causes for arrival of Europeans. Rate the developments introduced by the British in Chennai. Analyse the developments in socio-economic, religious and cultural aspects of Chennai.
		India's Foreign Policy (1947-2000)	<ol style="list-style-type: none"> Comprehends the outline of Foreign policy Demonstrate the structural setting of Foreign policy Assess foreign relations of India. Analyses global regions and institutions.

			5. Evaluates present trends in international relations.
IV	4P18/4C/COI	Core 12 Contemporary India	<ol style="list-style-type: none"> 1. Outline Indian history in the eve of Independence and after. 2. Identify the socio-economic and political developments in the phase between Jawaharlal Nehru and Indira Gandhi's regime. 3. Analyse the developments between Rajiv Gandhi to P.V. Narasimha Rao's phase. 4. Discuss on coalition politics in India and its prospects and challenges. 5. Critically assess the NDA and UPA Governments.
IV	4P18/4C/IHI	Core 13 Intellectual History of India	<ol style="list-style-type: none"> 1. Identify ancient practices of Indian society and appreciates the ancient and medieval thoughts. 2. Discuss the role of social thinkers in reforming Indian society. 3. Explain the ancient religious and economic thoughts, and reasons for their emergence. 4. Critically analyses various political thoughts. 5. Evaluate the theories of Socialism and Communism.
IV	4P18/4C/HUS	Core 14 History of USA	<ol style="list-style-type: none"> 1. Discuss US colonization and events upto Manifest Destiny. 2. Explain the situation that led to American civil war to the period of New Imperialism. 3. Assess the events between the Progressive era to the Great Economic Depression. 4. Predict American situation and status in the Second World War and Civil Rights Movement. 5. Helps to analyse America between the reigns of J.F. Kennedy to Bill Clinton.
IV	4P18/4C/HRM	Core 15 Historiography and	1. Outlines History and the basics of research.

		Research Methodology	<ol style="list-style-type: none"> Identify the evolution of Historiography. Explain the Historiography of India. Discuss the concepts of doing research in History. Utilize the methods and techniques used in thesis writing.
IV	4P18/4E5/SHR	Elective 5 Studies in Human Rights	<ol style="list-style-type: none"> Identify the concept of Human rights and helps them learn its historical evolution. Analyse the core conventions on Human Rights across the world. Explain the international system of Human Rights through a study on the various Human Rights protecting mechanisms and Organizations. Analyse Human Rights in India. Assess group rights and contemporary issues in human rights.
IV	4P18/4S/INS	Soft Skill 4 Interview Skills	<ol style="list-style-type: none"> Utilize the essentials of facing interviews. Prepares to participate in interviews. Apply basics of post interview.

MSC ZOOLOGY

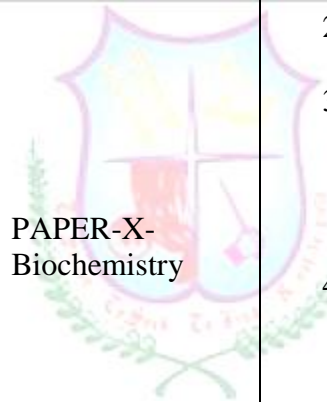
SEMESTER	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	5P18/1C/FMI	PAPER-I- Functional Morphology and Systematics of Invertebrates	<ol style="list-style-type: none"> 1. Explain the origin of Protozoa and Hydrostatic movement. 2. Discuss the Excretion and Nervous system in Invertebrates. 3. Compare the Digestive, Respiratory Mechanism in Invertebrates. 4. Explain the larval forms in Invertebrates 5. Outline the structure and affinities of Minor Phyla.
I	5P18/1C/GEN	PAPER-II Genetics	<ol style="list-style-type: none"> 1. Explain the gene and chromosomal organisation in eukaryotic cell. 2. Apply advanced career-oriented technology such as chromosome banding and Karyotyping. 3. Relate the application of somatic cell and microbial genetics. 4. Examines the genetic basis and various checkpoints of cell cycle. 5. Evaluate the concepts of recombination and DNA repair mechanism in prokaryote and eukaryote system.
I	5P18/1C/MBY	PAPER-III- Molecular Biology	<ol style="list-style-type: none"> 1. Understanding the structure and functions of a eukaryotic genome at the molecular level and the importance of DNA repair mechanism in cellular functioning. 2. Understanding the molecular mechanisms involved in DNA replication and transcription in prokaryotic and eukaryotic cells. 3. Gains knowledge on the mechanism of translation in prokaryotic and eukaryotic cells and the post translational modifications and regulations in protein synthesis. 4. Creates awareness on the cause of oncogenesis and thereby enable

			<p>the students to implement the preventive measures in the society.</p> <p>5. Understands the importance of cell signalling mechanism in the functioning of the cell.</p>
I	5P18/1E1/MIC	ELECTIVE-I- Microbiology	<ol style="list-style-type: none"> 1. Explain the different types of microbial classification. 2. Outline the Ultra structure of Bacterial cell and their functions. 3. Distinguish the types of nutrition, growth and its environmental influences. 4. Compile the various microbial interactions, associated with the Environment. 5. Comprehend the types of microbes in air, water and soil.
II	5P18/2C/FMC	PAPER-IV- Functional Morphology and Systematics of Chordates	<ol style="list-style-type: none"> 1. Explain the origin of Chordates 2. Discuss the origin of Reptiles, Aves and Mammals 3. Compare anatomy in Vertebrates 4. Explain the vertebrates integument and other systems 5. Analyse the Evolution of Horse and Man.
II	5P18/2C/BBB	PAPER-V- Biophysics, Biostatistics and Bioinformatics	<ol style="list-style-type: none"> 1. Outline the difference between functioning of light microscope and electron microscope. 2. Demonstrate the operating principles of chromatographic separation technique and ability to interpret the working principle of spectrophotometer. 3. Identify the effects of exposure to ionizing radiation at the cellular, organ and body levels and to recognize autoradiography techniques. 4. Compute the mathematical basis and foundation of probability and statistics. 5. Use the need of computational tools and analyze the biological database in open source domain.
II	5P18/2E2/EAB	ELECTIVE-II Evolution and	<ol style="list-style-type: none"> 1. Examine the overall concept of Fossilization.


		Animal Behaviour	<ol style="list-style-type: none"> 2. Apply the insights of Hardy Weinberg principle and its application. 3. Paraphrase the origin and evolution of primates. 4. Diagnose the various behaviour in animal. 5. Asses the concepts of aggression, territory and foraging behaviour of animals.
II	5P18/2E3/MEY	ELECTIVE-III- Mammalian Endocrinology	<ol style="list-style-type: none"> 1. Outline the chemistry and functioning of hormones and understands its feedback mechanism. 2. Relate the organization and functions of Hypothalamo - hypophysial system with its disorders. 3. Justify the role of thyroid, parathyroid and pancreas in the control of diabetes. 4. Discuss the structure and functioning of the adrenal gland and its associated hormonal disorders. 5. Predict the importance of reproductive hormones in the process of procreation.
I & II	5P18/2C/MP1	PRACTICAL I- Invertebrata, Chordata and Microbiology	<ol style="list-style-type: none"> 1. Explain the unique characters of Protozoa to Echinodermata. 2. Dissect and demonstrate the Digestive, Nervous and Reproductive systems of Invertebrates. 3. Describe unique characteristics of Fishes, Amphibian, Reptiles, Aves and Mammals. 4. Demonstrate the aortic arches in Shark and Mullet 5. Identify and study some of the common microbes, bacterial identification with gram staining method.
I & II	5P18/2C/MP2	PRACTICAL II- Molecular Biology,	<ol style="list-style-type: none"> 1. Equipped in handling micrometer, preparing microslides and in identifying different types of blood

		Genetics, Biophysics and Biostatistics	<p>cells.</p> <ol style="list-style-type: none"> 2. Understands the techniques of drosophila culture, karyotyping, genomic imprinting and applications of gene therapy. 3. Understands the techniques of spectrophotometer and electrophoresis and uses it in future research program. 4. Use the theories of statistics in compiling in biological results. 5. Predict the Measures of central tendency
III	5P18/3C/APY	PAPER-VI- Animal Physiology 	<ol style="list-style-type: none"> 1. Outline the metabolism of carbohydrates, protein & lipids and physiology of Circulation. 2. Explain the physiological process of respiration and discuss the respiratory adaptations. 3. Identify the importance of excretion, osmoregulation and thermoregulation. 4. Explain the mechanism of neurotransmission of muscle co-ordination. 5. Discuss the physiological mechanisms involved in photo & auditory reception, colour changes and bioluminescence.
III	5P18/3C/EBC	PAPER-VII- Environmental Biology and Biodiversity conservation	<ol style="list-style-type: none"> 1. Discuss on the importance of biosphere and its conservation 2. Identify the basic issues of pollutions (Air, Water, Noise, radioactive thermal and agriculture pollution) 3. Apply the knowledge on disaster management. 4. Examine the importance and exploitation of Mineral resources and energy resources. 5. Analyse various biodiversity predicaments.
III	5P18/3C/IMM	PAPER-VIII- Immunology	<ol style="list-style-type: none"> 1. Evaluates the integrated functioning of the cells, tissues and organs of immune system and gains in depth knowledge of the

			<p>Ag-Ab interactions at the molecular level.</p> <ol style="list-style-type: none"> Identifies the immunoglobulin structure and gene organisation, and gains an insight into the complement system, MHC and its regulation. Discuss the molecular mechanisms of T cell and B cell maturation and the structure of the receptors and the effector molecules and their therapeutic implications. Predicts the immunological response to various types of hypersensitivity and to outline the concepts involved in autoimmune disorders. Analyse the nature of infectious diseases based on the immune responses elicited by our body. Formulate a vaccination schedule and identify the uses of immune techniques.
III	5P18/3E4/RDT	 <p>ELECTIVE-IV- rDNA Technology</p>	<ol style="list-style-type: none"> Outline the scope in emerging field of biotechnology i.e. Recombinant DNA Technology Apply various enzymes, vectors and hosts in molecular cloning experiments and perform how to construct cDNA libraries Select the different Hybridization technique Use the methods of DNA sequencing and DNA microarray technique. Explain comprehensive knowledge about transgenic technologies and GM foods
III	5P18/3S/DFG	Soft skill - III Dairy Farming	<ol style="list-style-type: none"> Distinguish the different breeds of cows and buffaloes with their characters and explain the different breeding techniques in dairy farming. Tabulate the different causative agents of cattle diseases with their symptoms and preventive

			<p>measures.</p> <ol style="list-style-type: none"> 3. Prepare the students on their entrepreneurial skills in milk production and marketing.
IV	5P18/4C/DBY	PAPER-IX- Developmental Biology	<ol style="list-style-type: none"> 1. Relate the different reproductive pattern in protozoa. 2. Determine the mechanism behind metamorphosis and vitellogenesis in insects. 3. Organizes the molecular events pertaining to fertilization and gametogenesis. 4. Asses the strategies of various assistant reproductive techniques. 5. Infer in-depth knowledge in immuno-contraception.
IV	5P18/4C/BIO	 PAPER-X- Biochemistry	<ol style="list-style-type: none"> 1. List down the advantages and importance of chemical bonding that occurs in living organisms. 2. Calculate and explain the mechanism of buffer and acid base 3. Comprehend & correlate how the living organisms exchange energy and matter with the surroundings and various biochemical changes that obeys thermodynamic laws. 4. Recognize and describe the structure, synthesis, role in metabolic pathways and their regulation and functioning of carbohydrates, amino acids , lipids, enzymes. 5. Differentiate the nucleic acid and importance oxxenobiotics at biochemical level.
IV	5P18/4C/AQU	PAPER-XI- Aquaculture	<ol style="list-style-type: none"> 1. Explain the biology of fishes and Aquarium fish keeping technology 2. Design the fish farm and their maintenance. 3. Apply the knowledge about different culture methods are used in aquaculture 4. Analyse fish breeding techniques and different types of crafts and gears used for fish catching 5. Use the knowledge about Fish

			Preservation techniques
IV	5P18/4S/PFM	Soft Skill- IV Poultry Farming	<ol style="list-style-type: none"> 1. Explain the scopes and importance of poultry farming 2. Outline the modern poultry farming technology 3. Apply the entrepreneur skill on poultry farming 4. Formulate the preparation of poultry feeds and their nutritional values.
IV	5P18/4C/MP3	PRACTICAL III- Animal Physiology, Biochemistry, Immunology and Recombinant DNA Technology	<ol style="list-style-type: none"> 1. Deduce the RQ salt content, aminoacids in the tissue & the glucose in the experimental animal. 2. Exhibit and knowledge in the field of immunology and biotechnology. 3. Explain the number of lymphocytes & identify the antigen determinants. 4. Will be able to demonstrate agarose gel electrophoresis of DNA. 5. Provide hands on training to use various bio instruments in the research laboratoy
IV	5P18/4C/MP4	PRACTICAL IV- Developmental Biology, Environmental Biology and Aquaculture	<ol style="list-style-type: none"> 1. Identify the different stages of frog metamorphosis and developmental stages of chick embryo. 2. Relate gonadosomatic index and fecundity 3. Inculcate current knowledge in assessment of water samples (pH, salinity, free carbon dioxide, dissolved oxygen and calcium, pH and oxygen), able to differentiate marine and freshwater planktons, will also develop knowledge about sandy, muddy and rocky shore fauna. 4. Encounter and overcome the issues in aqua farming. 5. Judge the difference between fresh and marine water fishes and also gain clear knowledge about fish morphometry.


II	5P18/2E/MCC	Maternity and Child Care	<ol style="list-style-type: none"> 1. Able to draw and explain human reproductive system and influence of hormone in maturity. 2. Discuss the diagrammatic representation of steps involved in human gametogenesis. 3. Explain the process of fertilization in man. 4. Analyse maternal changes and parturition and also list down the reasons for infertility and their treatment. 5. List out the prenatal and postnatal care and tabulate the immunization schedule.
III	5P18/3E/AQF	 Aquarium Fishes	<ol style="list-style-type: none"> 1. Identify and utilise the potential resources available in India 2. Get vast knowledge on the nutritional requirements and various types of feed like live food organisms and pellet feed. 3. Learn the basic aspects of successful aquarium setting and maintain their own aquarium tank. 4. Acquire holistic knowledge on fish breeding, pathogens and their control measures. 5. Appreciate the future prospects of ornamental fisheries with relevant knowledge on the economics of fresh and marine water fisheries in the fishery industry.

MSC CHEMISTRY

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	6P18/1C/OC1	Core 1- OrganicChemistry–I	<ol style="list-style-type: none"> 1. Classify chiral molecules as dissymmetric / asymmetric and assign R/S configuration. Apply the concept and principles of asymmetric synthesis and propose syntheses of molecules of reasonable complexity with control of stereochemistry. 2. Predict number of stereo isomers in molecules; assign E/Z nomenclature and topical relationship to organic molecules. Analyse and identify stereospecific, stereoselective, regioselective, chemoselective and regiospecific reactions 3. Discuss Conformations of mono and disubstituted cyclohexanes and decalins Compare the relationship between conformation and reactivity 4. Formulate methodologies for determining reaction mechanism and energetics of the reaction. Apply concept of NGP to bicyclic systems. Use of LFER to explain effect of substituents on reaction rates. 5. Explain mechanism and stereochemistry of elimination reactions in simple and cyclohexane ring systems. Predict major and minor product of elimination reactions, identify reaction parameters to drive reaction towards substitution / elimination.
I	6P18/1C/IC1	Core 2 -	<ol style="list-style-type: none"> 1. Discuss the application of CFT to various systems,

		Inorganic Chemistry – I	<p>describe the stability of metal complexes in terms of formation constant, calculate TD parameters , explain JT theorem and Nephelauxetic effect</p> <ol style="list-style-type: none"> 2. Demonstrate detailed functional knowledge about the symmetry, bonding in octahedral and tetrahedral systems, spin orbit coupling and derive term symbols of free ions 3. Understand electronic transitions in metal complexes, interpret the spectra of coordination complexes and learn charge transfer spectra 4. Explain different governing them ,types of electron transfer reaction and factors 5. Evaluate and gain knowledge on the various mechanism of substitution reactions in coordination complexes
I	6P18/1C/PC1	Core 3 - Physical Chemistry – I	<ol style="list-style-type: none"> 1. Acquire in depth knowledge about theories of chemical kinetics and calculate specific rate, activation energy and frequency factor. 2. Examine Michaelis Menten constant for enzyme – substrate binding by Lineweaver Burk plot. 3. Analyze kinds of radiation utilised in several fields of research and industry 4. Distinguish molecular and crystallographic symmetry; apply multisymmetry operations to derive character tables. 5. Gain knowledge of symmetry based selection rules for vibrational and electronic spectroscopy and predict the spectra of molecules

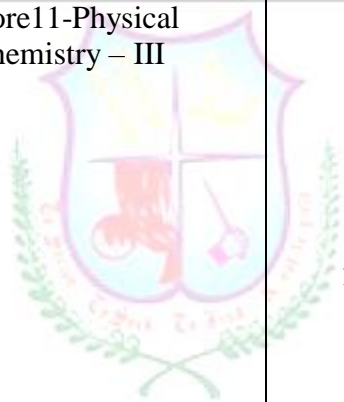
I	6P18/1E1/NAC	Major Elective1- Nano Chemistry	<ol style="list-style-type: none"> 1. Learn the size dependent property of materials, classify and connect them with nature 2. Gain in depth knowledge of laboratory and technology-based synthesis of nano materials and evaluate them based on application and design 3. Analyze the unique properties of the nano scale materials in comparison with their macro and micro scale levels 4. Correlate the nano scale properties with their spectroscopic and microscopic data and draw conclusion on their microstructure and morphology 5. Compare and contrast the wider range of applications of nano materials in terms of energy, environment and medicine.
II	6P18/2C/OC2	*CorePractical- 1-Organic Chemistry	<ol style="list-style-type: none"> 1. Understand the mechanism and stereochemistry of oxidation of organic compounds with reagents like PCC,PDC, Collins reagent, Prevost and Woodward method of hydroxylation of alkenes and oxidative cleavage of C—C single and double bond. 2. Explain mechanism and stereochemistry of reduction of organic compounds with various reagent like LiAlH_4 NaBH_4,trialkyl hydride etc 3. Demonstrate Name reactions - Clemmensen , MPV. Wolf—kishner, Birch reduction and selectivity in reduction 4. Explain the preparation, structure, reactions and stereo chemical aspects of reactive intermediates like. carbanion, carbocation carbenes and

			<p>nitrenes used in organic synthesis</p> <ol style="list-style-type: none"> Outline the mechanism of free radical addition to olefin, aromatic radical substitution reactions and understand preparation and trapping of aryl intermediates Explain mechanism and stereochemistry of rearrangement reactions - Wagner Meerwein, Demjanov, Dienone- Phenol, Von-Richter, Baeyer- Vileiger, Favorskii and Steven rearrangement, its applications to other molecules
II	6P18/2C/IC2	<p>*Core Practical - 2-Inorganic Chemistry</p> 	<ol style="list-style-type: none"> Learn structure, bonding, stability and reactivity of simple boranes, carboranes and metallo carboranes Explain structural aspects of metallic clusters and polyanions of important compounds Examine the different cubic systems , application of Bragg's equation and X-ray powder method in identifying inorganic crystalline solids Identify various crystal structures and their defects, learn principles and application of liquid crystals Understand Diffusion mechanism in solids , Band theory of solids, super conductors , Magnetic and optical properties of solids, concept of Hysteresis and determination of magnetic susceptibility by Guoy and Faraday methods
II	6P18/2C/PC2	Core 6 - Physical Chemistry– II	<ol style="list-style-type: none"> Analyze the need for quantum mechanics, relate quantum mechanical operators to observables and the use of operator algebra to solve simple eigen value equations,

			<p>relate molecular phenomena viz translational, rotational and vibrational motion to model systems and solve Schrodinger equation to arrive at the eigen values</p> <ol style="list-style-type: none"> Derive eigen values and wave functions of H and He atom using approximation methods. Concept of antisymmetric wave function and solve Hartree and Hartree Fock equation for helium atom Apply Molecular orbital and valence bond treatment to simple homonuclear diatomic molecules- H_2^+ & H_2, MOT of higher diatomic molecules, HMO treatment of simple conjugated systems Gain knowledge about kinetics of complex reactions and fast reactions. Distinguish various adsorption isotherms
II	6P18/2E2/SPE	Major Elective2 - Spectroscopy	<ol style="list-style-type: none"> Learn the principle of Infra-red and Raman spectroscopy, correlate with the molecular modes of vibration and apply the rules to interpret the spectra of organic and inorganic molecules Explain the concept and rules of electronic transitions in organic molecules and their correlation with UV absorption and emission spectroscopy Discuss the principles and application of spin resonance of electron and nuclei of H, C, P, F in terms of EPR and NMR spectroscopy respectively for structural elucidation Analyze and apply the rules of Mass spectroscopy for the fragmentation pattern in


			<p>different types of organic functional groups</p> <p>5. Acquire the skill to decode the Photo electron and x ray Photo electron spectra in terms of binding energy, spin orbit coupling and spin - spin coupling</p>
II	6P18/2E/COS	Non Major Elective1- Cosmetology	<ol style="list-style-type: none"> 1. Develop positive attitude and a sense of personal integrity, practice proper grooming, skin care, massage, facial and make-up purposes 2. Gain knowledge and practical skills on usage of face creams, lotions, bleaching, manicure, pedicure and waxing 3. Learn skills in preparation and applications of face powder, nail care and importance of essential oils 4. Gain knowledge on hair caring techniques and shampooing 5. Acquire skill on hair removing techniques, cosmetic hazards and quality control
I & II	6P18/2C/PR1	*Core7 - Practical – 1Organic Chemistry	<ol style="list-style-type: none"> 1. Acquire skill and expertise in the separation of Organic mixtures ,purification and identification of components 2. Design single and multistage synthesis of complex organic compounds and execute them in the laboratory 3. Apply skill in spectroscopic interpretation to elucidate structure of organic compounds
I & II	6P18/2C/PR2	*Core 8 - Practical-2- Inorganic Chemistry	<ol style="list-style-type: none"> 1. Analyze qualitatively a mixture .containing two rare and two communications 2. Estimate quantitatively the binary mixtures of metallic ions by volumetric and gravimetric methods, Calorimetric estimation of ions (Fe, Ni, Mn andCu). 3. Develop skills to analyze some common alloys and ores. 4. Acquire skills to prepare

			inorganic complexes and characterization by IR and UV-VIS absorption studies
II	6P18/2C/INT	Internship	<ol style="list-style-type: none"> 1. Integrate knowledge and skills learnt at the college in Industry /Research Institution 2. Develop ability to work in a team for scientific investigation and reporting as projects are of interdisciplinary type 3. Demonstrate satisfactory ability to communicate rationally , logically, concisely, clearly and effectively the nature of the work done during internship programme
III	6P18/3C/OC3	Core 9-Organic Chemistry – III	<ol style="list-style-type: none"> 1. Describe nomenclature, synthesis and properties of heterocyclic compounds 2. Elucidate the structure of alkaloids , apply the principles of peptide synthesis to synthesize a tripeptide ,understand the different levels of structure of proteins and its properties 3. Describe the preparation , properties of flavonoids, anthocyanidins and compare the UV- Visible spectrum of flavonoids 4. Study the structure and synthesis of vitamin A, carotenes & cholesterol and methods of inter conversion of cholesterol to hormones. 5. Discuss structure of DNA & RNA, its properties, synthesis and application of supramolecules, biosynthesis of cholesterol and supra molecules.
III	6P18/3C/IC3	Core 10 - Inorganic Chemistry–III	<ol style="list-style-type: none"> 1. Gain and apply the knowledge in working of various techniques such as polarography coulometry, voltammetry to simple systems 2. Demonstrate an understanding

			<p>of various chromatographic techniques and its applications, principle and applications of Flame Photometry, Thermogravimetric analysis, ability to select and use appropriate analytical separation techniques.</p> <ol style="list-style-type: none"> 3. Outline and discuss the structure and properties of various macrocyclic ligands. 4. Explain various proteins associated in transportation of ions, solutes inside and between the cells. 5. Solve problems related to plant growth, crop production and natural resource management
III	6P18/3C/PC3	Core11-Physical Chemistry – III 	<ol style="list-style-type: none"> 1. Gain knowledge on basic concepts of ensembles, statistical probabilities in the filling of atomic and molecular energy levels, partition functions and their derivation. 2. Acquire skill to relate molecular partition functions with thermodynamic and kinetic parameters and derive mathematical expressions 3. Analyze and apply concepts of partition function to heat capacities of solids and gases, black body radiation 4. Gain in-depth knowledge of concepts of phase equilibria and interpret the phase diagrams of simple and complex (ternary) systems 5. Correlate the thermodynamic aspects of compound formation, phase transition and salting.
III	6P18/3E3/PHC	Major Elective3-Photo Chemistry	<ol style="list-style-type: none"> 1. Gain advanced knowledge on interaction of radiation

			<p>with matter, principles of photochemistry and its applications.</p> <ol style="list-style-type: none"> Demonstrate the difference between radiative and non-radiative transitions with the help of Jablonski diagram Explain kinetics of different types of photochemical reactions , acquire knowledge on photogalvanic cells, photoelectrochemical cells and solarenergy conversion Compare direct photolysis and sensitized photolysis reactions. Discuss the mechanism of photochemical reactions of ketones and photochemical rearrangement reactions Predict and formulate the outcomes of pericyclic reactions in terms of orbital interactions and/or the Woodward-Hoffmann Rules & FMO approach and explain fluxional behavior in molecules
III	6P18/3E/FDP	Non Major Elective -2 Fibre Fabrics , Dyeing and Printing of Textiles	<ol style="list-style-type: none"> Classify fibres and demonstrate textile production from fibre to fabric Discuss the types of fibres and explain the cultivation and processing methods Demonstrate knowledge on weaving and spinning methods of fibre Comprehend classification of dyes ,methods and principles of dyeing of silk , cotton, wool and nylon Understand various methods of printing and its applications
III	6P18/3S/LSS	Soft Skill3- Laboratory Safety Skills	<ol style="list-style-type: none"> Apply safety precautions skills to store and handle various hazardous chemicals to avoid accidents in the laboratory. Use of first aid techniques and preparing for emergencies and

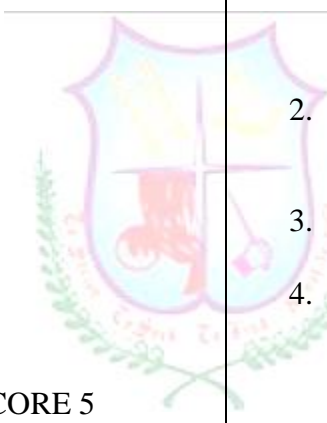
			<p>incident reporting procedures.</p> <ol style="list-style-type: none"> Learn waste treatment techniques , disposal management and utilize Appropriate methods to dispose the waste properly.
IV	6P18/4C/OC4	Core12-Organic Chemistry – IV	 <ol style="list-style-type: none"> Gain in depth knowledge in the for formation of C-C bonds , protection and deprotection of functional groups and use of select reagents in organic synthesis Compile and demonstrate knowledge on Retrosynthesis and various terminologies , Retro synthesis of simple molecules – alcohols, alkenes and di carbonyl compounds , formation of C-C bond using different coupling reactions Outline the principles of green chemistry and explain the various protocols in organic synthesis. Design synthesis of target molecules from given organic starting materials at reasonably high- yields Explain the mechanism, stereochemical aspects and applications of various named reactions. Discuss the aromaticity of annulenes and study the structure and properties of different types of aromatic /antiaromatic compounds
IV	6P18/4C/IC4	Core13 - Inorganic Chemistry -IV	<ol style="list-style-type: none"> Gain knowledge on the structure, bonding and reactions of metallocenes and study of fluxional behavior Learn the mechanism of select reactions – hydrogenation , oxoprocess , Wacker process , Zeigler Natta polymerization catalysed by organometallic

			<p>compounds and its applications</p> <ol style="list-style-type: none"> Understand the basics of nuclear chemistry , detection and determination of radioactivity of elements Explain nuclear fission and fusion reactions & study the applications of nuclear chemistry in diverse fields. Demonstrate methods of water treatment in detail , ambient air quality standard , use of analytical methods to identify the toxins present in the environment and methods to eradicate.
IV	6P18/4E4/ECC	Major Elective 4 - Electrochemistry and Computational Chemistry 	<ol style="list-style-type: none"> Familiarize the concepts of ion-ion interactions, ion solvent interactions, calculations of ionic activity and ionic strength Analyze and compare various thermodynamic models of electrode-electrolyte interface and derive mathematical equations. Derive mathematical expressions for electrocapillary, single and multi-step electrocatalysis and exchange current density. Correlate the causes and control of corrosion using Pourbaix and Evans diagrams and to design primary and secondary batteries, dry cells with maximum energy efficiency Apply the tools of computational chemistry; calculate atomic and molecular energy levels using software tools and molecular modelling techniques.
IV	6P18/4E5/POC	Major Elective5- Polymer Chemistry	<ol style="list-style-type: none"> Explain various concepts and types of polymerisation and classify polymer structure Demonstrate and explain the mechanism and kinetics of

			<p>polymerization reactions</p> <ol style="list-style-type: none"> 3. Explain the bond forces, mechanical Properties, degradation and electrical conductivity of polymers 4. Analyse and characterize polymer by spectral methods 5. Discuss various polymer processing methods and its applications
IV	6P18/4C/PR3	*Core14 Practical III-Physical Chemistry	<ol style="list-style-type: none"> 1. Explain the principle of conductivity, potentiometry, kinetics and phase rule experiments. 2. Determine the strength of unknown solutions by potentiometric and Conductometric methods. 3. Analyse the kinetics, thermodynamics and other factors influencing reactions.

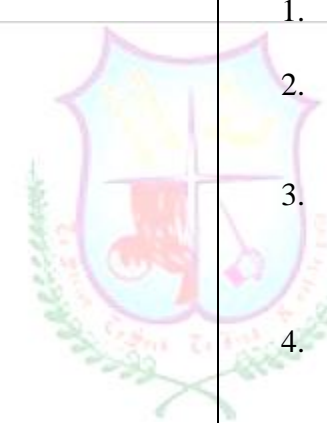


SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	7P18/1C/ORB	CORE 1 Organizational Behaviour	<ol style="list-style-type: none"> 1. Identify the effect of OB models and organizational learning on human behaviour. 2. Assess theories of motivation and its impact on job satisfaction. 3. Analyse Leadership theories and evaluate its effectiveness on Organisational culture. 4. Design strategies of employee counselling to handle stress. 5. Evaluate various OB models for change management & development in the organization.
I	7P18/1C/BET	CORE 2 Business Environment	<ol style="list-style-type: none"> 1. Assess the various factors of the environment affecting the business organization. 2. Apply the appropriate strategies to analyse the business environment. 3. Discuss the rules, regulations & implications of globalization. 4. Discuss the concepts of intellectual property rights and evaluate their implications in business. 5. Analyse the role of CSR of businesses in contributing to society.
I	7P18/1C/SMG	CORE 3 Services Marketing	<ol style="list-style-type: none"> 1. Outline the nature and scope of services marketing. 2. Identify distinctive characteristics of services and their impact on a firm's marketing strategies. 3. Discuss the element of marketing mix for the service industry. 4. Evaluate the techniques used in measuring service quality and the challenges faced by firms in synchronizing demand and supply of services. 5. Apply the knowledge and skills for a successful career in the services sector.
I	7P18/1C/ST1	CORE 4 Statistical Tools	<ol style="list-style-type: none"> 1. Identify the concepts of e-commerce and its application in Human

		for Business Management-I	<p>Relations, Customer Relationship Management, Marketing and Banking sector.</p> <ol style="list-style-type: none"> 2. Formulate the various phases of set up, design, marketing, maintenance and enhancement phase of launching of e-business. 3. Apply different techniques of internet business & marketing and the role of Business-to- Business, Customer-to-Business and Customer-to-Customer market places. 4. Discuss the traditional and modern methods & problems of the electronic payment system. 5. Examine the legal and ethical principals in e-commerce.
II	7P18/2C/ADM	 <p>CORE 5 Accounting for Decision Making</p>	<ol style="list-style-type: none"> 1. Apply the basic cost concepts and compile and compute the cost allocation and prepare cash flow statement. 2. Analyse and interpret financial statements using the technique of ratio analysis. 3. Describe the knowledge of marginal costing in making decisions. 4. Prepare statements by applying principles of Activity based costing, Transfer Pricing and Just-in-time approach. 5. Discuss the Budgeting techniques for the purpose of forecasting, planning and control.
II	7P18/2C/REM	<p>CORE 6 Research Methodology</p>	<ol style="list-style-type: none"> 1. Discuss the concept of Research, types of Research, steps in the research process & Research Design. 2. Formulate Hypotheses, test them and decide the appropriate sampling techniques. 3. Identify the different types of measurement scales, rating scales and data collection techniques. 4. Process and analyse the data. 5. Apply the underlying principles of interpretation of data for effective report writing.

II	7P18/2C/IRM	CORE 7 Insurance and Risk Management	<ol style="list-style-type: none"> 1. Demonstrate the understanding of the importance of the Insurance industry and its Intermediaries. 2. Explain the role of Insurance Regulatory and Development Authority in the regulation and development of the Insurance Industry. 3. Assess and compare different products with respect to Life Insurance, Health Insurance and Group Insurance. 4. Analyse the various Non-Life Insurance in relation to General Insurance, Fire Insurance, Miscellaneous Insurance, Vehicle Insurance, House Property Insurance and Burglary Insurance. 5. Identify and evaluate the Risk and formulate risk management strategies.
II	7P18/2E2/GDT	ELECTIVE 2 Group Dynamics and Team Building	<ol style="list-style-type: none"> 1. Identify the types of groups and how groups operate in organizations. 2. Explain the roles and power of team leadership along with creating effective groups and teams. 3. Apply the knowledge of quick decision making and analytical skills required to handle critical situations. 4. Analyse and manage conflicting situations in the work place. 5. Communicate effectively within the group and between groups
II	7P18/2E/EDP	EXTRA DISCIPLINARY 1 Entrepreneurial Development	<ol style="list-style-type: none"> 1. Apply the concept of Entrepreneurship and become aware of the role of government in the development of women entrepreneurs. 2. Prepare project reports. 3. Identify and compare the various ownership structures that are prevailing in the business. 4. Evaluate the role of financial institutions in entrepreneurial development. 5. Evaluate the initiatives of the government and financial institutions,

			and utilize them to become entrepreneurs.
III	7P18/3C/ACF	CORE 9 Advanced Corporate Accounting and Corporate Finance	<ol style="list-style-type: none"> 1. Use the accounting provisions required to be adopted when firms raise funds through issue of shares and debentures. 2. Analyse financial statements to gauge the profitability and evaluate the asset- liability position of the firm. 3. Design the roles and responsibilities of a finance manager and plan an optimal capital structure for a firm. 4. Evaluate feasible financials while taking decisions involving huge capital outlay and similarly manage regular short-term fund requirements of the firm using working capital techniques. 5. Analyse various dividend policies adopted by the firms.
III	7P18/3C/LSM	CORE 10 Logistics and Supply Chain Management	<ol style="list-style-type: none"> 1. Apply the key concepts of LSM at micro and macro levels. 2. Identify and utilize the modern practices and technology like Cross docking, Ratio Frequency Identification and its application. 3. Calculate inventory requirement and its cost based on the various principles of inventory management. 4. Discuss the factors affecting decisions concerning cost effective transportation systems. 5. Plan and design the racking and storage system for warehousing and cost effective distribution.
III	7P18/3C/FEM	CORE 11 Foreign Exchange Management	<ol style="list-style-type: none"> 1. Discuss the functioning of foreign exchange markets and determination of foreign exchange rates. 2. Apply the concept of financial fragility & analyze Transaction, Translation and Economic exposure risks. 3. Evaluate the foreign exchange risk and identify the financial instruments to minimize the risk. 4. Use the different documents needed

			<p>for export and import.</p> <p>5. Compile & compare different types of Insurance required for export & import, EPCG schemes & services.</p>
III	7P18/3C/DT1	CORE 12 Direct Tax Management -I	<ol style="list-style-type: none"> 1. Demonstrate the understanding of the basic concepts of Income Tax and Tax Planning. 2. Compute Salary Income of an individual. 3. Assess House Property Income 4. Evaluate income earned by an individual from a business carried on or from the practice of a profession 5. Compute Capital Gains and identify the benefits available under the Income Tax Act by way of deductions to minimize the tax liability; demonstrate the ability to plan taxes.
III	7P18/3E3/TQM	 ELECTIVE 3 Total Quality Management	<ol style="list-style-type: none"> 1. Apply the concepts, principles and philosophies of TQM. 2. Identify and apply strategic planning and leadership techniques in developing quality culture. 3. Explain the extent of employee involvement with respect to teams, quality circles and continuous process improvement. 4. Analyse and utilize the various concepts and TQM tools towards effective business management. 5. Compare the importance and requirements of organization evaluation standards (ISO 9000, ISO 14000 and ISO 14001).
III	7P18/3E/HRS	EXTRA DISCIPLINARY 2 Human Relations	<ol style="list-style-type: none"> 1. Apply the concept and meaning of Human Relations and face the emerging challenges. 2. Demonstrate the knowledge on Individual and Group Behaviour. 3. Discuss the Motivational theories to enhance human relations. 4. Apply the knowledge of different leadership styles and emerge as a good leader. 5. Identify the need for change and implement strategies to overcome

			conflicts.
III	7P18/3S/TMP	SOFT SKILLS 3 Teaching Methods and Practices	<ol style="list-style-type: none"> 1. Identify types and importance of Teaching aids 2. Apply the skills of effective teaching by adopting relevant concepts of educational psychology. 3. Discuss the various teaching methodologies in their teaching career
IV	7P18/4C/SPM	CORE 13 Security Analysis and Portfolio Management	<ol style="list-style-type: none"> 1. Evaluate the various investment avenues available to individuals and institutions. 2. Compute the value of securities such as shares and bonds. 3. Evaluate various economic, industry and company related factors that influence the stock value performance 4. Apply the concepts of behavioural finance and understand market efficiency 5. Compare the factors affecting a portfolio and devise and manage an effective portfolio of investments
IV	7P18/4C/AMS	CORE 14 Accounting for Mergers and Special Accounts	<ol style="list-style-type: none"> 1. Use the specialised knowledge gained in the preparation of final accounts of Banking and Insurance Companies as per current provisions of the BANKING Regulation Act 1949 and IRDA guidelines. 2. Discuss the accounting treatment of amalgamation of companies as per AS14. 3. Prepare consolidated financial statements of Holding Companies in accordance with AS21. 4. Apply the knowledge gained on selected Accounting Standards. 5. Analyse the theoretical knowledge on the methods of valuation of human resources by organisations and measurement of social costs and social benefits resulting from business activities.
IV	7P18/4C/DT2	CORE 15 Direct Tax Management -II	<ol style="list-style-type: none"> 1. Compute income under the head income from other sources. Apply provisions relating to Clubbing of Income and Set Off and Carry

			<p>Forward of Losses in computing total income and identify tax planning considerations.</p> <ol style="list-style-type: none"> 2. Assess taxable income and tax liability of an individual considering all the eligible deductions from the Gross Total Income. 3. Compute the income of firms and companies and compare tax evasion, tax avoidance and tax planning. Demonstrate the understanding of basics of Black Money Law in India. 4. Explain the provisions relating to TDS, Advance tax, Refund of tax. Demonstrate the understanding of the assessment procedures and the ability to file return of Income. 5. Discuss provision relating to double taxation relief, DTAA and related provisions under International Taxation norms and taxation of Non Residents Indians.
IV	7P18/4S/EES	Enhancement of Employability Skills	<ol style="list-style-type: none"> 1. Apply the quantitative and reasoning skills to face competitive examinations. 2. Demonstrate effective communication and comprehensive skills. 3. Discuss current affairs.

MA BUSINESS ECONOMICS

SEMESTER	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	8P18/1C/AMT// 3P18/1C/AMT	Advanced Micro Economic Theory	<ol style="list-style-type: none"> 1. Summarize the models related to consumer behaviour 2. Design models related to firm's profit maximizing strategies 3. Gain knowledge on long run behaviour of firms 4. Explain general equilibrium model in relation to allocation of resources 5. Examine the theories related to choice and uncertainty.
I	8 P18/1C/MFE// 3P18/1C/MFE	Mathematics for Economists	<ol style="list-style-type: none"> 1. Interpret the transformation of a Matrix 2. Solve system of equations 3. Gain Knowledge to use optimization techniques 4. Apply differential equations in Economics 5. Apply difference equations in Economics
I	8P18/1C/ SFE// 3P18/1C/ SFE	Statistical Method for Economists	<ol style="list-style-type: none"> 1. Estimate value of unknowns 2. Outline the fundamentals and basic rules of probability that help in decision making. 3. Calculate and interpret Correlation and regression coefficients 4. Apply Univariate and Multivariate techniques. 5. Acquire knowledge on vital statistics that would equip students to calculate CDR,SDR,IMR,MMR and other vital indicators
I	8P18/1E1/ FNE// 3P18/1E1/ FNE	Financial Economics	<ol style="list-style-type: none"> 1. Assess the importance of Capital and Money market. 2. Have an insight about the secondary market in India. 3. Examine the role of intermediaries in the securities market. 4. Discuss the role of securities in secondary market.

			5. Explain the various types of investment in secondary market.
II	8P18/2C/MEA// 3P18/2C/MEA	Macro Economic Theory and Analysis	<ol style="list-style-type: none"> 1. Compare and contrast the Classical and Keynesian perspectives with regard to Income and Employment determinants. 2. Interpret theories of consumption and working of the multiplier. 3. Gain deeper understanding on general disequilibrium theories with regard to failure of money market. 4. Relate the theories of Business cycles to understand the working of economies. 5. Analyse the differences between investment and Consumption goods.
II	8P18/2C/ECM// 3P18/2C/ECM	Econometric Methods	<ol style="list-style-type: none"> 1. Use the least squares method in determining relationships among different variables 2. Examine the meaning and applicability of dummy variables 3. Estimate the linear probability models and the role of lags 4. Gain in-depth knowledge in Simultaneous equation models 5. Recall the basic methods of time series data and dynamic models
II	8P18/2C/ SCA// 3P18/2C/ SCA	Statistics with Computer Applications	<ol style="list-style-type: none"> 1. Perform test of Hypothesis and estimate Mean and Proportions using confidence intervals 2. Construct Point and Interval estimates and the properties of estimators 3. Apply test of Hypotheses and use Non-Parametric test 4. Construct and conduct F-test, and Analysis of Variance and interpret the results obtained 5. Acquire an In-depth knowledge on Ms-Excel and SPSS packages
II	8P18/2E2/ MGE// 3P18/2E2/ MGE	Managerial Economics	<ol style="list-style-type: none"> 1. Explain the models and analyse case studies 2. Assess the various methods of inventory control 3. Discuss the role played by

			<p>Government in market economy.</p> <ol style="list-style-type: none"> Analyse the risks involved in projects Identify Economic and Business forecasting techniques
II	8P18/2E/ HRM	Human Resource Management	<ol style="list-style-type: none"> Explain the basic ideas of human resource management. Estimate the importance of placement and selection. Adapt the recruitment process adopted by Companies. Formulate methods to motivate workforce. Assess the performance of the workers using performance and potential appraisal.
III	8P18/3C/ IEY// 3P18/3C/ IEY	Indian Economy	<ol style="list-style-type: none"> Discuss the indicators of growth and the latest methods of farming with food management and food security. Review the status of economic farming in India. Identify the challenges of agricultural sector. Appraise the role of the industries in the current scenario. Analyse the impact of FDI on the Indian Economy.
III	8P18/3C/ MOE// 3P18/3C/ MOE	Monetary Economics	<ol style="list-style-type: none"> Examine the latest developments in theories of demand for money. Quantify the relationship between money supply and price. Assess the financial strength of the commercial banks. Appraise the role of financial and non-banking financial intermediaries. Analyse the recent monetary policy changes and its impact on Indian economy.
III	8P18/3C/ RMC// 3P18/3C/ RMC	Research Methodology and Computer Applications in Economics	<ol style="list-style-type: none"> Identify the research problem and research process scientifically. List the various methods and sources of collecting data. Explore the software tools in data maintenance and operations. Apply statistical tools in analyzing

			<p>the project report.</p> <p>5. Examine the software in conducting research in economics.</p>
III	8P18/3E3/ MKM	Marketing Management	<ol style="list-style-type: none"> 1. Outline the creativity and management of marketing 2. Appraise the various methods adopted in selling 3. Assess how markets are segmented 4. Review about planning process 5. Provide an insight into latest trends in marketing
III	8P18/3E4/ PFM	Portfolio Management	<ol style="list-style-type: none"> 1. Recognise the investment risks and returns. 2. Get an insight into risk measurement and various models on risk 3. Analyse the opportunity and threats prevalent in the Macro Economic environment 4. Review market theories and their implications 5. Diagnose the importance of the capital asset pricing model
III	8P18/3E/ PUR	Public Relations	<ol style="list-style-type: none"> 1. State the meaning of public relations. 2. Realise the importance of communication skills 3. Analyse the different methods of publicrelations. 4. Identify the importance of research in publicrelations. 5. Interpret code of ethics to formulate newstrategies in CSR
III	8P18/3S/ YML // 3P18/3S/ YML	Yoga and Meditation for better living	<ol style="list-style-type: none"> 1. Synthesize on theoretical aspects ofAsanas and Pranayama techniques 2. Rejuvenate body & mind through meditation 3. Practice simple exercises based on Asanas and Mudras
IV	8P18/4C/EGD// 3P18/4C/EGD	Economics of Growth and Development	<ol style="list-style-type: none"> 1. Compare the various development indices and Marco Economic indicators 2. Critically review various theories of growth 3. Analyse efficiently various theories of

			<p>development</p> <ol style="list-style-type: none"> 4. Make choice in techniques of production 5. Assess the concept of Sustainable Development & Growth oriented strategies.
IV	8P18/4C/INE// 3P18/4C/INE	International Economics	<ol style="list-style-type: none"> 1. Interpret the theories of international trade. 2. Discuss the concept of terms of trade and various institutional tools 3. Explain the determination of exchange rate 4. Appraise the relationship between foreign direct investment and economic growth. 5. Explore the role of various institutions in facilitating trade between countries.
IV	8P18/4C/ENE// 3P18/4C/ENE	Environmental Economics	 <ol style="list-style-type: none"> 1. Identify core concepts in understanding the nature of Environmental problems. 2. Discuss the concept of optimal allocation and reasons for market failure. 3. Analyze theoretical and empirical research in environmental and natural resource Economics. 4. Suggest policies to solve Environmental issues through Economic theory. 5. Assess the extent of damage due to pollution and evaluate the current practices adopted in environmental protection.
IV	8P18/4E5/EMT	Event Management	<ol style="list-style-type: none"> 1. Recall the meaning of Event Management 2. Recognize the Principles of Event Management 3. Examine the role of Finance and Accounts in organizing Events 4. Judge the relevance for celebrity and Artiste Management 5. Analyse the growth of Event Management Industry in India

IV	8P18/4S/EMS// 3P18/4S/EMS	Employability Skills	<ol style="list-style-type: none"> 1. Acquire basic employability skills. 2. Have an insight into cognitive and retention skills 3. Enhance personal skills
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ETHIRAJ COLLEGE FOR WOMEN (AUTONOMOUS)



COURSE OUTCOMES

SELF SUPPORTING

M.COM

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	7P18/1C/ORB	Organisational Behaviour	<ol style="list-style-type: none">1. Identify the effect of OB models and organizational learning on human behaviour.2. Assess theories of motivation and its impact on job satisfaction.3. Analyse Leadership theories and evaluate its effectiveness on Organisational culture.4. Design strategies of employee counselling to handle stress.5. Evaluate various OB models for change management & development in the organization.
I	7P18/1C/BET	Business Environment	<ol style="list-style-type: none">1. Assess the various factors of the environment affecting the business organization.2. Apply the appropriate strategies to analyse the business environment.3. Discuss the rules, regulations & implications of globalization.4. Use the concepts of intellectual property rights and evaluate their implications in business.5. Analyse the role of CSR of businesses in contributing to society.
I	7P18/1C/SMG	Services Marketing	<ol style="list-style-type: none">1. Outline the nature and scope of services marketing.2. Identify distinctive characteristics of services and their impact on a firm's marketing strategies.3. Find the element of marketing mix for the service industry.4. Evaluate the techniques used in measuring service quality and the challenges faced by firms in synchronizing demand and supply of services.

			5. Apply the knowledge and skills for a successful career in the services sector.
I	7P18/1E1/ECM	E -Commerce	<ol style="list-style-type: none"> 1. Identify the concepts of e-commerce and its application in Human Relations, Customer Relationship Management, Marketing and Banking sector. 2. Formulate the various phases of set up, design, marketing, maintenance and enhancement phase of launching of e-business. 3. Apply different techniques of internet business & marketing and the role of Business-to- Business, Customer-to-Business and Customer-to-Customer market places. 4. Discuss the traditional and modern methods & problems of the electronic payment system. 5. Examine the legal and ethical principals in e-commerce.
II	7P18/2C/ADM	Accounting for Decision Making	<ol style="list-style-type: none"> 1. Apply the basic cost concepts and compile and compute the cost allocation and prepare cash flow statement. 2. Analyze and interpret financial statements using the technique of ratio analysis. 3. Examine the knowledge of marginal costing in making decisions. 4. Prepare statements by applying principles of Activity based costing, Transfer Pricing and Just-in-time approach. 5. Use Budgeting techniques for the purpose of forecasting, planning and control
II	7P18/2C/REM	Research Methodology	<ol style="list-style-type: none"> 1. Discuss the concept of Research, types of Research, steps in the research process & Research Design. 2. Formulate Hypotheses, test them and decide the appropriate sampling techniques. 3. Identify the different types of measurement scales, rating scales and data collection techniques. 4. Process and analyze the data. 5. Apply the underlying principles of

			interpretation of data for effective report writing.
II	7P18/2C/IRM	Insurance and Risk Management	<ol style="list-style-type: none"> 1. Demonstrate the understanding of the importance of the Insurance industry and its Intermediaries. 2. Explain the role of Insurance Regulatory and Development Authority in the regulation and development of the Insurance Industry. 3. Assess and compare different products with respect to Life Insurance, Health Insurance and Group Insurance. 4. Analyze the various Non-Life Insurance in relation to General Insurance, Fire Insurance, Miscellaneous Insurance, Vehicle Insurance, House Property Insurance and Burglary Insurance. 5. Identify and evaluate the Risk and formulate risk management strategies.
II	7P18/2E2/GDT	Group Dynamics and Team Building	<ol style="list-style-type: none"> 1. Identify the types of groups and how groups operate in organizations. 2. Explain the roles and power of team leadership along with creating effective groups and teams. 3. Apply the knowledge of quick decision making and analytical skills required to handle critical situations. 4. Analyse and manage conflicting situations in the work place. 5. Communicate effectively within the group and between groups
II	7P18/2E/EDP	Entrepreneurial Development	<ol style="list-style-type: none"> 1. Apply the concept of Entrepreneurship and become aware of the role of government in the development of women entrepreneurs. 2. Prepare project reports. 3. Identify and compare the various ownership structures that are prevailing in the business. 4. Evaluate the role of financial institutions in entrepreneurial development. 5. Examine the initiatives of the government and financial institutions, and utilize them to become entrepreneurs.
III	7P18/3C/ACF	Advanced Corporate	<ol style="list-style-type: none"> 1. Use the accounting provisions required

		Accounting and Corporate Finance	<p>to be adopted when firms raise funds through issue of shares and debentures.</p> <ol style="list-style-type: none"> Analyse financial statements to gauge the profitability and evaluate the asset-liability position of the firm. Design the roles and responsibilities of a finance manager and plan an optimal capital structure for a firm. Evaluate feasible financials while taking decisions involving huge capital outlay and similarly manage regular short-term fund requirements of the firm using working capital techniques. Apply various dividend policies adopted by the firms.
III	7P18/3C/LSM	Logistics and Supply Chain Management	<ol style="list-style-type: none"> Apply the key concepts of LSM at micro and macro levels. Identify and utilize the modern practices and technology like Cross docking, Ratio Frequency Identification and its application. Calculate inventory requirement and its cost based on the various principles of inventory management. Analyse the factors affecting decisions concerning cost effective transportation systems. Plan and design the racking and storage system for warehousing and cost effective distribution.
III	7P18/3C/FEM	Foreign Exchange Management	<ol style="list-style-type: none"> Discuss the functioning of foreign exchange markets and determination of foreign exchange rates. Apply the concept of financial fragility & analyze Transaction, Translation and Economic exposure risks. Evaluate the foreign exchange risk and identify the financial instruments to minimize the risk. Use the different documents needed for export and import. Compile & compare different types of Insurance required for export & import, EPCG schemes & services.
III	7P18/3C/DT1	Direct Tax Management -I	<ol style="list-style-type: none"> Demonstrate the understanding of the basic concepts of Income Tax and Tax

			Planning. 2. Compute Salary Income of an individual. 3. Assess House Property Income 4. Evaluate income earned by an individual from a business carried on or from the practice of a profession 5. Compute Capital Gains and identify the benefits available under the Income Tax Act by way of deductions to minimize the tax liability; 6. Demonstrate the ability to plan taxes.
III	7P18/3E3/TQM	Total Quality Management	1. Apply the concepts, principles and philosophies of TQM. 2. Identify and apply strategic planning and leadership techniques in developing quality culture. 3. Extent of employee involvement with respect to teams, quality circles and continuous process improvement. 4. Analyse and utilize the various concepts and TQM tools towards effective business management. 5. Compare and Analyse the importance and requirements of organization evaluation standards (ISO 9000, ISO 14000 and ISO 14001).
III	7P18/3E/HRS	Human Relations	1. Apply the concept and meaning of Human Relations and face the emerging challenges. 2. Demonstrate the knowledge on Individual and Group Behaviour. 3. Discuss the Motivational theories to enhance human relations. 4. Know the knowledge of different leadership styles and emerge as a good leader. 5. Identify the need for change and implement strategies to overcome conflicts.
III	7P18/3S/TMP	Teaching Methods and Practices	1. Identify types and importance of Teaching aids 2. Know the skills of effective teaching by adopting relevant concepts of educational psychology. 3. Apply various teaching methodologies

			in their teaching career
IV	7P18/4C/SPM	Security Analysis and Portfolio Management	<ol style="list-style-type: none"> 1. Compare and evaluate the various investment avenues available to individuals and institutions. 2. Compute the value of securities such as shares and bonds. 3. Evaluate various economic, industry and company related factors that influence the stock value performance 4. Apply the concepts of behavioural finance and understand market efficiency 5. Compute and compare the factors affecting a portfolio and devise and manage an effective portfolio of investments
IV	7P18/4C/AMS	Accounting for Mergers and Special Accounts	<ol style="list-style-type: none"> 1. Use the specialised knowledge gained in the preparation of final accounts of Banking and Insurance Companies as per current provisions of the BANKING Regulation Act 1949 and IRDA guidelines. 2. Apply the accounting treatment of amalgamation of companies as per AS14. 3. Prepare consolidated financial statements of Holding Companies in accordance with AS21. 4. Apply the knowledge gained on selected Accounting Standards. 5. Illustrate the theoretical knowledge on the methods of valuation of human resources by organisations and measurement of social costs and social benefits resulting from business activities.
IV	7P18/4C/DT2	Direct Tax Management -II	<ol style="list-style-type: none"> 1. Compute income under the head income from other sources. Apply provisions relating to Clubbing of Income and Set Off and Carry Forward of Losses in computing total income and identify tax planning considerations. 2. Assess taxable income and tax liability of an individual considering all the eligible deductions from the Gross Total Income.

			<ol style="list-style-type: none"> 3. Calculate the income of firms and companies and compare tax evasion, tax avoidance and tax planning. 4. Demonstrate the understanding of basics of Black Money Law in India. 5. Explain the provisions relating to TDS, Advance tax, Refund of tax. 6. Understand the assessment procedures and the ability to file return of Income. 7. Discuss the provision relating to double taxation relief, DTAA and related provisions under International Taxation norms and taxation of Non Residents Indians.
IV	7P18/4S/EES	Enhancement of Employability Skills	<ol style="list-style-type: none"> 1. Apply the quantitative and reasoning skills to face competitive examinations. 2. Demonstrate effective communication and comprehensive skills. 3. Discuss current affairs. 4. Apply the acquired computer skills.



MA HUMAN RIGHTS AND DUTIES EDUCATION


SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	9SP18/1C/HHP	Human Rights-A Historical Perspective	<ol style="list-style-type: none"> 1. Identify and discuss the evolution and principles of The Constitution and functions of the Indian Political Frame 2. Apply, rationalize and advocate for the fundamental rights elucidated in the Indian Constitution and utilize the avenue for Redressal 3. Asses and communicate the issues and process on Panchayathi Raj System and Municipal Corporation 4. Able to apply the principles of PIL and Advocate for Human Rights issues through Credressal mechanism available 5. Identify the working process of the electoral process and will be able to assess the autonomy of the Election Commission of India.
I	9SP18/1C/HIC	Human Rights And Duties Under Indian Constitution	<ol style="list-style-type: none"> 1. Discuss the evolution and principles of The Constitution and functions of the Indian Political Frame 2. Apply, rationalize and advocate for the fundamental rights elucidated in the Indian Constitution and utilize the avenue for Redressal 3. Assess and communicate the issues and process on Panchayathi Raj System and Municipal Corporation 4. Apply the principles of PIL and Advocate for Human Rights issues through redressal mechanism available 5. Identify the working process of the electoral process and will be able to assess autonomy of the Election Commission India.
I	9SP18/1C/HRL	Key Legislations Furthering Human Rights in India	<ol style="list-style-type: none"> 1. Identifies the international legal instruments and create a strong base of in knowledge about International advocacy mechanisms of human rights. 2. Explain the National level advocacy mechanisms and to apply those advocacy practice for human rights protection and promotion.

			<ol style="list-style-type: none"> 3. Discuss the advocacy provisions available and use it in case of human rights violations. 4. Outline the salient features of the Acts and the Amendments and to utilize it 5. Describe the salient features of the available provisions for the protection and promotion of human rights of the vulnerable
I	9SP18/1C/HGR	Human Rights And Group Rights	<ol style="list-style-type: none"> 1. Appreciate the concept of group rights 2. Get equipped with the understanding of rights of women, children, persons with disabilities, minorities, migrant workers, indigenous people and refugees. 3. Analyse the International Conventions on rights of groups 4. Work in areas advocating and protecting people from human rights violations 5. Develop analysis on the complex human rights issues with respect to group rights
I	9SP18/1E1/FVS or 9SP18/1E1/IHR	Field Visits to Human Rights Organisation Or Implementing Human Rights in Daily Life	<ol style="list-style-type: none"> 1. Apply the exposure gained through field visits to strategically plan the human rights protective and promotional activities in future 2. Use the knowledge in policy making and program designing 3. Utilize the information in monitoring and evaluation of project 4. Demonstrate the acquired knowledge in fund raising, Capacity building and team management while starting an NGO 5. Effectively utilise the Information in all their endeavors
I	9SP18/IE/IHR	Implementing Human Rights In Everyday Life	<ol style="list-style-type: none"> 1. Advance knowledge about filing a case and use it in day to day life. 2. Utilize the provisions of affidavit 3. Accumulate knowledge about various human rights protection mechanisms and make use of it in daily life. 4. Outline the national and the local protecting mechanisms available in defending human rights. 5. Make use of the knowledge of the public interest litigation and utilize it in daily life.
II	9SP18/2C/HCI	Human Rights	<ol style="list-style-type: none"> 1. Prepare for opportunities in one or more

		And Criminal Justice System	<p>institutions for the administration of criminal justice for the furtherance of human rights.</p> <ol style="list-style-type: none"> 2. Get familiarised with the realities prevailing within the enforcement organisation 3. Recognise the various sentencing strategies and procedures within the judiciary 4. Familiarise with the prison culture and correctional administration 5. Empathise with the victim situation and analyse the assistance program implementation
II	9SP18/2C/HAR	Human Rights Advocacy And Redress of Grievances	<ol style="list-style-type: none"> 1. Identify the public advocacy methods apply it for the promotion and protection human rights. 2. Use the different strata of human rights education 3. Utilise the different advocacy mechanisms techniques. 4. Communicate and apply the redress mechanisms of local and national level human rights advocacy mechanisms. 5. Discuss and Predict the special mechanisms available at local level.
II	9SP18/2C/HDD	Human Rights in Developed and Developing Countries	<ol style="list-style-type: none"> 1. Evaluate the human rights scenario in the west 2. Critically analyse the link between developed and developing countries with respect to human rights 3. Evaluate the various facets of globalization in developed countries. 4. Examine the economic situation of India in human rights perspective 5. Analyse the human rights scenario in the developing world. 6. Identify the ways for achieving sustainable development goals
II	9SP18/2C/HDF	Human Rights and Duties of the Fourth Estate	<ol style="list-style-type: none"> 1. Discuss and identify the importance of fourth estate in the democratic political governance. 2. Illustrate and demonstrate the various forms of media and also promote and advocate human rights. 3. Can predict issues in reporting and formulate and follow error free reporting style 4. Analyze, interpret and then relate between

			<p>right to information and right to privacy</p> <p>5. Able to analyze the human rights issues ethical loophole created by the emergence new social media and also can design utilize the forum for promotion of human rights.</p>
II	9SP18/2E1/LRS or	Labour Rights or	<ol style="list-style-type: none"> 1. Discuss the basics of human resource management related to human rights. 2. Identify the discriminatory and non-discriminatory practices. 3. Utilize the provisions labor laws in protection of human rights. 4. Communicate the labor welfare laws provisions of various Acts, and use it in day to day life. 5. Identify the compliance of the human rights standards at work place and apply it.
	9SP18/2E1/HWE	Human Rights And Women's Empowerment	<ol style="list-style-type: none"> 1. Sensitized on women issues and the rights conferred to women. 2. Identify and differentiate various crimes perpetuated and be able to seek redressal advocate for their rights 3. Apply the gained knowledge for appropriate situation during marriage, divorce and inheritance and will be able to analyze given situation for seeking redressal 4. Enable them to use the legal support given the acts appropriately 5. Learn to identify what they are entitled to how to advocate for their rights through right forum.
II	9SP18/2E/DWR	NME1 - Defending Women's Rights	<ol style="list-style-type: none"> 1. Sensitized on women issues and the rights conferred to women. 2. Identify and differentiate various crimes perpetuated and be able to seek redressal advocate for their rights 3. Apply the gained knowledge for appropriate situation during marriage, divorce and inheritance and will be able to analyze given situation for seeking redressal 4. Enable them to use the legal support given the acts appropriately 5. Know what they are entitled to and how to advocate for their rights through the right forum.
II	9SP18/2S/AST	SBS 2 -	<ol style="list-style-type: none"> 1. apply the basic concepts of social science

		Communication Skill in English/ French for Beginners/ German for Beginners	<p>methodology to human rights concepts</p> <ol style="list-style-type: none"> 2. Use logical steps of research in human rights issues 3. Elucidate the different methods of data collection 4. Describe methods for analyzing both quantitative and qualitative data 5. Use SPSS as an analytical tool
III	9SP18/3C/RMR	Research Methodology for Social Sciences	<ol style="list-style-type: none"> 1. Identify and outline the issues pertaining gender inequality and will be able to explain the concepts for framing gender policies for the gender upliftment. 2. Discuss the ideologies of feminist's reform movements and will be able to assess impact on the women statuses in any given community 3. Assess the change in the legal status of women in India and will be able to 4. Compare it with other international standards and will be able to advocate for the further changes and improvement. 5. Analyze and assess the importance of political participation and representation of women. 6. Will be able to identify the violations faced by third gender and will be able to advocate the need of inclusive policy framework
III	9SP18/3C/CIS	Contemporary Issues In Human Rights	<ol style="list-style-type: none"> 1. Critically analyse issues in a human rights perspective and understand the key causes for the same. 2. Evaluate the current issues in human rights 3. Analyse the various facets of discrimination and advocate the violations faced therewith 4. Critically examine the human rights perspectives of globalisation 5. Evaluate the causes and effects of terrorism. 6. Advocate the rights on indigenous people 7. Identify the ethical aspects of scientific developments
III	9SP18/3E3/NGO or 9SP18/3E3/EDR	Human Rights And NGO Management / Emerging	<ol style="list-style-type: none"> 1. Discuss the qualities and the challenges faced by NGO's in protecting human rights. 2. Explain the use of the legal and the statutory requirements in the formation of new NGOs

		Dimensions of Human Rights	<ol style="list-style-type: none"> Utilise the knowledge of project planning monitoring and use it in their area of expertise Communicate the funding agencies foreign and local and formulate it for their future endeavors in NGO's. Outline the emerging peoples movements evaluate the field work with NGO's and report writing.
			<ol style="list-style-type: none"> Analyse the various dimensions of Human Rights internationally Evaluate the new applied fields of Human Rights Critically examine the modern forms of Human Rights violations like peace, development etc., Explain the human rights violations by non-state entities Examine the future of the world in human rights perspective
III	9SP18/3E/AHR	 <p>NME 2 - Application Of Human Rights in Daily Life</p>	<ol style="list-style-type: none"> Advance knowledge about filing a case use it in day to day life. Utilize the provisions of affidavit Accumulate knowledge about various human rights protection mechanisms and make use of it in daily life. Outline the national and the local protection mechanisms available in defending human rights. Make use of the knowledge of the public interest litigation and utilize it in daily life.
III	9SP18/3E4/BHR or	Bio Medical Ethics And Human Rights /	<ol style="list-style-type: none"> Outline the evolution of Biomedical Ethics identify and discuss the national international agencies and their role in improving Health Care. Analyze issues pertaining to Biomedical ethics and Human rights and will be able to evaluate and discuss the extent of protection extended by the national and legal policies Will be able to apply and analyze international policies and its applicability to the national scenario, and will enable them to identify the need and can advocate for the need of quality health care Will be able to review and compare international measures and can identify the need for reformation in the national policies

			<ol style="list-style-type: none"> Will be able to understand and apply international mechanisms to the Ind scenario.
III	9SP18/3E4/HDP	Human Rights-Development, Peace and Security	<ol style="list-style-type: none"> Analyze international politics and the operations of United Nation's aim and procedural functioning Evaluate holistic and sustainable development for peace modules Examine peace courts and international human rights. Criticize the countries based on safety and security Appreciate the interdependency of nations
III	9SP18/3S/PTS	SBS 4 - Presentation Skills	<ol style="list-style-type: none"> Advocate human rights in different ways to different sectors of the society Effectively present the ideas to the target audience in an efficient way Analyse and understand the need of the audience and act accordingly Create effective street theatres and sensitize people Acquire advocacy and campaigning jobs with excellent presentation skills
III	9SP18/3SS/FWH	Field work in human rights Organisations	<ol style="list-style-type: none"> Apply the exposure gained through field w to strategically plan the human rig protective and promotional activities in futu Use the knowledge in policy making and program designing Utilize the information in monitoring and evaluation of project Demonstrate the acquired knowledge in fund raising, Capacity building and team management while starting an NGO Effectively utilise the Information in all their endeavours
IV	9SP18/4C/HRE	Human Rights And Duties Towards The Environment	<ol style="list-style-type: none"> Advance knowledge about human rights duties towards environment. Accumulate knowledge about environme impact assessment and the victimization those supporting environment rights. Accumulating knowledge about environm and human rights and safety for nucl technologies and sustainable development. Outline the United nations environm program and communicate the climate cha and major environment disasters and conflic

			5. Make use of the knowledge of the public interest litigation and utilize it in daily life protecting environment.
IV	9SP18/4C/IPR	Intellectual Property Rights And Human Rights	<ol style="list-style-type: none"> 1. Discuss and justify the human rights perspective of intellectual property and will be able to coordinate and communicate working process of WTO and WIPO 2. Identify and apply case specific concepts intellectual property in their research project 3. Discuss and apply various international national treaties pertaining to Intellectual Property 4. Relate, discuss and advocate for reform intellectual property rights to address issues in the developing countries. 5. Analyze and critique the new perspective emerging technologies in the Cyberspace will be able to relate it to intellectual property rights.
IV	9SP18/4C/CHR	Cyber Issues And Human Rights	<ol style="list-style-type: none"> 1. Define and describe the nature and scope of cyber crimes and human rights violations 2. Have a clarity on the threats to data security and measure of data protection 3. Explicate the threats prevailing in internet and the remedies available 4. Be aware of the dangers in social digital media and defence mechanisms 5. Have a clarity and apply the legal measures available for any human rights violations happening in cyber space
IV	9SP18/4C/PRO	Project - A Study of Human Rights/ Violation	<ol style="list-style-type: none"> 1. Identify and utilize relevant previous work to support their research 2. Articulate a timely and important research question 3. Work collaboratively with other research demonstrating effective communication problem-solving skills 4. Present the research effectively in a conference setting and a written publication 5. Reflect constructively on their research experience, identifying what was learned, personal strengths and opportunities for growth, and how the experience informs their future educational and career goals
IV	9SP18/4E1/IHR	International	1. Understand the constitution and

	or 9SP18/4E1/CSO	Obligations Towards Human Rights / Human Rights and Civil Society Organisation	<p>working of the United Nations for the protection of human rights</p> <ol style="list-style-type: none"> 2. Be equipped to get opportunities in United Nations and international NGOs. 3. Evaluate the role of international human rights bodies 4. Analyse the international mass human rights issues and the role of UN 5. Acquire skills on the working of UN and its assembly meetings
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MSC PLANT BIOLOGY & PLANT BIOTECHNOLOGY

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	10SP18/1C/AFV	Plant diversity-I: Algae, Fungi, Lichens, Bryophytes, Bacteria and Viruses	<ol style="list-style-type: none"> 1. Discuss the classification, structure, reproduction, life cycles and economic importance of Algae 2. Outline the classification, structure, reproduction, life cycles and economic importance of Fungi 3. Explain the structure, reproduction and economic importance of Lichens 4. Analyse the classification, structure, reproduction, life cycles and economic importance of Bryophytes. 5. Compile the classification, structure, reproduction, life cycles, economic importance and harmful effects of Bacteria, Mycoplasma, Viruses and Viroids
I	10SP18/1C/PGP	Plant diversity - II: Pteridophytes, Gymnosperms and Paleobotany	<ol style="list-style-type: none"> 1. List the general characters and economic importance of Pteridophytes 2. Compare the structure and reproduction of various Pteridophytes 3. Outline the general characters and economic importance of Gymnosperms 4. Analyse the lifecycle patterns of different Gymnosperms 5. Discuss the applied aspects of Paleobotany
I	10SP18/2C/PR1	Practical - I: Covering Core Papers - I & II	<ol style="list-style-type: none"> 1. Evaluate different algal forms 2. Analyse different forms of fungi 3. Discuss structural organization of various bryophytes 4. Compare vegetative and reproductive structures of pteridophytes and gymnosperms 5. Identify different fossil forms
I	10SP18/1E1/PPA (or) 10SP18/1E1/BPT	Plant Pathology* (or)	<ol style="list-style-type: none"> 1. Analyse the significance of plant pathology and the interaction between host and pathogen 2. Discuss about the defence mechanism of the host plants 3. Design certain control measures including integrated pest management 4. Explain genetical factors behind plant

			<p>diseases and the resistance against pathogens</p> <p>5. Select tools which detect plant diseases at molecular level</p>
I	10SP18/1E1/BPT	Biopesticide technology	<p>1. Outline the use of biopesticides.</p> <p>2. Discuss about the different types of biopesticides</p> <p>3. Analyze the role of important biopesticides</p> <p>4. Explain the mechanism of action of biopesticides</p> <p>5. Formulate the commercial products of biopesticides</p>
I	10SP18/1E2/MTE (or)	Microbial Technology*(or)	<p>1. Design the basic knowledge about the industrial techniques and process involved.</p> <p>2. Formulate the industrial production of various products using microbes.</p> <p>3. Explain the microbial habitats and its applications in the various fields.</p> <p>4. Utilize the role of microbes in the field of food industry and its regulations.</p> <p>5. Discuss the basics of immunology and its importance.</p>
I	10SP18/1E2/ALB	Algal Biotechnology	<p>1. Apply various methods of algal production</p> <p>2. Evaluate industrial and agricultural applications of algae</p> <p>3. Assess the therapeutic use of algae</p> <p>4. Demonstrate r DNA technology in algae</p> <p>5. Discuss the role of algae in environmental health</p>
II	10SP18/2C/TEB	Taxonomy and Economic Botany of Angiosperms	<p>1. Discuss different systems of classification of flowering plants including recent APG system</p> <p>2. Analyze the general principles and modern trends in taxonomy of angiosperms</p> <p>3. Write the technical description of the prescribed families followed by phylogenetic consideration.</p> <p>4. Analyse family characteristics with illustrations depicting flowering twigs, floral structures and floral diagrams</p> <p>5. Apply the knowledge on plant</p>

			products in Industries
II	10SP18/2C/AEP	Developmental Botany - Anatomy, Embryology and Palynology of Angiosperms	<ol style="list-style-type: none"> 1. Outline the the types of tissues in plant kingdoms. 2. Compare the anatomical structures and its abnormalities. 3. Explain the development of male and female gametophytes 4. Compile the types of endosperms, morphogenesis, polyembryony and its uses. 5. Discuss Palynology- its scope and applications.
II	10SP18/2C/EPE	Ecology, Phytogeography and Evolution	<ol style="list-style-type: none"> 1. Analyse about the interaction between biotic and abiotic components of the environment and plant diversity 2. Discuss the concept of ecosystem of structure, function, energy flow, food chain , food web and nutrient cycles. 3. Evaluate about consequences in the environment and its control measures 4. Explain Phytogeography , conservation of biodiversity, remote sensing, population ecology 5. Outline theories of evolution, origin of life and species
II	10SP18/2C/PR2	Practical - II: Covering Core Papers III, IV and V	<ol style="list-style-type: none"> 1. Identify angiosperm taxa 2. Assess economic value of plant products 3. Discuss the anatomical relations among angiosperms 4. Analyse the application of pollengrains 5. Evaluate the impact of various environmental factors on biodiversity and their distribution
II	10SP18/2E3/HTE (or)	Herbal Technology (or)	<ol style="list-style-type: none"> 1. Discuss the scope and importance , classification, collection and processing of herbal drugs, cultivation and utilization of medicinal and aromatic plants 2. Apply various technique enhancing secondary metabolite production in tissue culture and its factors affecting 3. Analyse phytochemicals – Carbohydrates, glycosides,tannin and volatile oil

			<ol style="list-style-type: none"> 4. Compare various phytochemicals , types and applications in Phytopharmaceuticals 5. Evaluate Drug development , drug evaluation , premlinary screening and detection of adulterant
II	10SP18/2E3/ETB	Ethnobotany	<ol style="list-style-type: none"> 1. Discuss about history, concepts, definitions of ethnobotany 2. Identify distribution and knowledge of tribes in India and Tamilnadu 3. Plan for sources of ethnobotanical data, interviews and questionnaire 4. Analyse ethonobotanical knowledge of plants, non timber forest, culture and religious 5. Explain Bioprospecting, commercial use of traditional knowledge in IPR, biopiracy,equitable benefits
II	10SP18/2E/EBO	Extra Disciplinary – I Entrepreneurial Botany (offered to other Department students)	<ol style="list-style-type: none"> 1. Demonstrate mushroom cultivation and marketing 2. Discuss the techniques of gardening & tools 3. Explain vegetable carving, floral arrangement, Bonsai technique, Topiary, Floriculture and marketing 4. Analyse food preservation, food spoilage and packing technology 5. Outline vermicomposting, organic farming, entrepreneurship-funding agencies and importance of entrepreneurship development programme.
III	10 SP19/3C/CGP	Cell Biology, Genetics and Plant Breeding	<ol style="list-style-type: none"> 1. Outline the structural organization and function of cell organelles 2. Expain about cell cycle and tumour cells 3. Discuss about cell signaling mechanism 4. Analyse general concepts in genetics, linkage and crossing over, extra chromosomal inheritance and polygenic inheritance 5. Evaluate plant breeding techniques and apply for crop improvement
III	10SP18/3C/PMB	Plant Molecular	<ol style="list-style-type: none"> 1. Analysis of DNA and sequencing

		Biology	<ol style="list-style-type: none"> 2. Discuss replication and repair mechanism in DNA 3. Explain about transcription mechanism and classes of RNA 4. Evaluate protein synthesis and processing mechanisms 5. Outline gene regulation and expression in prokaryotes and eukaryotes
III	10SP18/3C/PBI	Plant Biotechnology	<ol style="list-style-type: none"> 1. Design the tools and techniques of recombinant technology 2. Explain the regulations, status and rights for the GM food. 3. Outline the basics of tissue culture laboratory, its needs and the steps involved in micropropagations. 4. Discuss the tissue culture techniques and its applications. 5. Analyse the product production by using invitro technique
III	10SP18/4C/PR3	Practical - III: Covering Core Papers VIII, IX and X	<ol style="list-style-type: none"> 1. Compare the cell organelles and their functions of a plant cell 2. Analyze the chromosomal aberrations induced by chemicals 3. Apply the statistical methods for various plant population studies 4. Utilize the nucleic acid isolation technique for advanced molecular studies 5. Demonstrate micropropagation of medicinally important plants
III	10SP18/3E4/BIS (or)	Biostatistics (or)	<ol style="list-style-type: none"> 1. Discuss the fundamental concept of biostatistics, sampling techniques, diagrammatic and graphical representation 2. Analyse data using measures of central tendency and measures of dispersion 3. Apply the fundamentals of probability and its distribution and statistical hypothesis test 4. Evaluate student 't' test, correlation, regression and testing its significance 5. Use computer application in biology and imbibe computer skills for biological data analysis and graphical representation

III	10SP18/3E4/WOT	Wood Technology	<ol style="list-style-type: none"> 1. Analyse the formation of wood 2. Discuss the properties of wood 3. Explain the mechanical properties and factors affecting wood formation 4. Outline the chemical properties of wood 5. Evaluate the economic importance of wood
III	10SP18/3E/MBD	Extra Disciplinary – II Medicinal Botany and Dietetics (offered to other Department students)	<ol style="list-style-type: none"> 1. Analyse the physicochemical analysis of medicinal plants 2. Apply the knowledge gained on botanical resources for its varied uses 3. Discuss on the therapeutic value of Indian foods 4. Utilize plants in treatment of various diseases 5. Design a proper food to maintain proper health
IV	10SP18/4C/PPH	Plant Physiology	<ol style="list-style-type: none"> 1. Compare the process of plant and water relation 2. Explain the process of photosynthesis and respiration 3. Apply the knowledge on the biosynthesis of secondary metabolites in pharmaceutical industries 4. Discuss the function and mechanism of action of various plant hormones 5. Evaluate stress physiology of plants
IV	10SP18/4C/PBB	Plant Biochemistry and Biophysics	<ol style="list-style-type: none"> 1. Discuss the atomic structure, bonding and also structure and functions of carbohydrates 2. Outline the nature, structure and functions of protein 3. Analyse the classification, nature, structure, functions and biosynthesis of fats 4. Explain the nature, structure, functions and applications of enzymes in industry and medicine 5. Evaluate bioenergetics, laws of thermodynamics, ATP and its applications in biological systems
IV	10SP18/4C/PR4	Practical - IV: Covering Core Papers IX and X	<ol style="list-style-type: none"> 1. Compare the importance of pigments in various plants 2. Predict the physiological mechanisms of plants

			<ol style="list-style-type: none"> 3. Demonstrate the importance of plant growth hormones 4. Analyse the biochemical constituents of plants 5. Evaluate the enzymatic activity of plants
IV	10SP18/4E5/BME (or) 10SP18/4E5/NBT	Bioinstrumentation and Methodology (or) Nanobiotechnology	<ol style="list-style-type: none"> 1. Explain the principles, methodology, types, techniques and application of microtomy, micrometry, centrifuge and chromatography 2. Apply technique in microscopy its principle and types. Fixation and staining technique for EM 3. Evaluate principle , applications and types of spectroscopy, electrophoresis, PCR, RFLP, RAPD, AFLP, DNA finger printing 4. Discuss about synthesis, characterization and biomedical application of nanotechnology 5. Plan to write research report with all the research component
IV	10SP18/4E5/NBT	Nanobiotechnology	<ol style="list-style-type: none"> 1. Discuss about history, process of green nanotechnology 2. Explain about structural and functions of DNA 3. Outline about biological membranes – lipid, protein and its applications 4. Analyse methods of nanobiotechnology, nanoforce, imaging, mass spectrophotometry, microfluidics and applications 5. Evaluate applications of nanobiotechnology in PCR, DNA micro array, biochips, biosensors and pharmaceutical applications

MSC MATHEMATICS

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	11SP18/1C/AL1	Algebra I	<ol style="list-style-type: none"> 1. Analyze three parts of Sylow's theorem and illustrates a different aspect of group theory. 2. Explain on the application of Finite Abelian groups 3. Discuss the concepts of Canonical Forms and Triangular Form. 4. Explain the applications of Nilpotent Transformations. 5. Compute the problems under Hermition, Unitary and Normal Transformations.
I	11SP18/1C/RA1	Real Analysis-I	<ol style="list-style-type: none"> 1. Study on functions of bounded variation. 2. Analyze and study the theory of Riemann Stieltjes Integration. 3. Learn Fundamental theorem of integral calculus Mean value theorems for Riemann Stieltjes integrals 4. Uniform convergence and continuity with reference to sequence of functions. 5. Discuss the convergence of multiplication of power series.
I	11SP18/1C/ODE	Ordinary Differential Equations	<ol style="list-style-type: none"> 1. Create and analyze mathematical models using higher order differential equations to solve application problems and solve differential equations with constant coefficients 2. Use the Wronskian to determine if a set of functions is linearly independent and solve problems using methods of undetermined coefficients, reduction of the order of equation and Laplace Transform. 3. Evaluate power series solutions about ordinary points and regular singular points and learn the Legendre equations, Legendre polynomial and properties of Bessel functions. 4. Demonstrate the existence and uniqueness of solutions and understand the linear systems of equations 5. Explain the method of successive

			approximations and Picard's theorem.
I	11SP18/1E1/GTY	Graph Theory	<ol style="list-style-type: none"> 1. Analyze various types of graphs and identify bipartite graphs. 2. Examine and identify properties of trees. Find out and determine vertex and edge connectivity of all simple graphs. 3. Apply the analytical techniques and theoretical knowledge in solving many real life problems. To prove theorems related to Hamiltonian, Eulerian graphs and matching. 4. Solve and analyze the colouring problem and apply them in the Timetabling problem and the Storage Problem. 5. Apply Euler's formula and Four Colour Conjecture in various problems and in many practical situations. To analyse and find a solution to planarity Algorithm.
I	11SP18/1E2/OR1	Operations Research I	<ol style="list-style-type: none"> 1. Solve Integer Programming by Gomory's cutting plane method 2. Examine the technologies of Dynamic Programming and solves the shortest route problem. 3. Able to solve an Linear programming problem using the dynamic programming approach. 4. Analyze and solve multivariable optimization with equality constraints 5. Formulate the general Non Linear Programming Problem and able to solve by Wolfe's modified simplex method.
II	11SP18/2C/AL2	Algebra II	<ol style="list-style-type: none"> 1. Solve Integer Programming by Gomory's cutting plane method 2. Examine the technologies of Dynamic Programming and solves the shortest route problem. 3. Able to solve an Linear programming problem using the dynamic programming approach. 4. Analyze and solve multivariable optimization with equality constraints 5. Formulate the general Non Linear Programming Problem and able to solve by Wolfe's modified simplex method.
II	11SP18/2C/RA2	Real Analysis-II	<ol style="list-style-type: none"> 1. Learn convergence of the Fourier Series 2. Analyze and study multivariable

			<p>differential calculus</p> <ol style="list-style-type: none"> 3. Study Jacobians, Implicit Function theorem and Inverse Function theorem. 4. Explain the notion of Measure theory 5. Study Riemann and Lebesgue Integrals
II	11SP18/2C/PDE	Partial Differential Equations	<ol style="list-style-type: none"> 1. Develop knowledge about second order equation in two independent variables, their canonical forms and equations with constant coefficients. 2. Evaluate Cauchy problem of infinite strings and finite strings with fixed ends. 3. Evaluate initial boundary value problem using the method of separation of variables. 4. Explain and use Dirichlet problem for a circle and circular annulus. 5. Recognize the concept of Green's function and apply Green's function method to determine the Greens function solution of the Dirichlet involving the Laplace and Helmholtz operator.
II	11SP18/2C/MTA	Mechanics and Tensor Analysis	<ol style="list-style-type: none"> 1. Discuss about the conservation principles and Lagrangian of Classical Mechanics. 2. Use the knowledge of the Hamiltons principle and Hamilton's equations. 3. Compute Canonical Transformations and special transformations 4. Explain the concepts of tensors and algebra of tensors. 5. Describe about the Riemann Christoffel tensors and Ricci's theorem
II	11SP18/2E3/OR2	Operations Research II	<ol style="list-style-type: none"> 1. Determine the expected value of perfect information ,expected opportunity loss and expected monetary value associated with any decision 2. Able to construct decision trees for making accurate decision . 3. Determine optimal order quantity when demand is instantaneous and replenishment is either discrete or continuous ,with or without set up cost 4. Analyse the basic characteristic features of a queueing system and acquire skills in

			<p>analyzing queueing models.</p> <p>5. Apply replacement policy for items whose efficiency deteriorates with time and for items that fail completely.</p>
II	11SP18/2E/MCE	Mathematics for competitive examinations	<ol style="list-style-type: none"> 1. Analyse various types of problems with logical reasoning 2. Examine and identify the techniques 3. Apply the analytical techniques and knowledge in business. 4. Analyse the various concepts in statistics 5. Apply the formula and perform calculations through quantitative aptitude
III	11SP18/3C/CA1	Complex Analysis I	<ol style="list-style-type: none"> 1. Identify how analytic functions are useful in complex integration 2. Find parametrizations of curves and compute line integrals directly and also solving problems involving residues 3. Effectively locate and use the information needed to prove theorem and establish mathematical results 4. Manipulate and use power series 5. represent rational functions
III	11SP18/3C/TOP	Topology	<ol style="list-style-type: none"> 1. Outline terms, definitions and theorems related to topology. 2. Use continuous functions and homeomorphisms to understand connectedness and local connectedness 3. Demonstrate knowledge and understanding of compact spaces and Hausdorff spaces 4. Discuss and illustrate the concepts of the countability and separation axioms 5. Explain a selection of theorems concerning normal and metrizable spaces,
III	11SP18/3C/DGY	Differential Geometry	<ol style="list-style-type: none"> 1. explain the concept of 3D in Frenet Serret formula. 2. explain the fundamental Existence theorem for space curves. 3. analyse the concept of anchor rings, helicoids, surface of revolution. 4. establish basic properties of geodesics, evolutes and minimal surfaces. 5. compute the differential equations for a geodesic.
III	11SP18/4C/CVI	Calculus of Variations and Integral	<ol style="list-style-type: none"> 1. Apply Euler-Lagrange equation or its first integral to find differential equations for stationary paths

		Equations	<ol style="list-style-type: none"> 2. Demonstrate a depth of understanding in advanced mathematical topics in relation to geometry of curves and surfaces Find the extremal of a functional. 3. Acquire sound knowledge of different types of Integral equations: Fredholm and Volterra integral equations. Represent integral equations to algebraic system of equations 4. Evaluates the solution to an integral equation using successive approximation. 5. Finds solution to a symmetric integral equation.
III	(Option 1) 11SP18/3E4/MS1	Mathematical Statistics I	<ol style="list-style-type: none"> 1. Investigate the expected value of certain function of a random variable. 2. Analyze some probability distributions of special importance in either theory or practice. 3. Apply the limit theorems in problems. 4. explain the significance of the law of large numbers. 5. Apply the knowledge of Markov chain in the problems.
III	(Option 2) 11SP18/3E4/FDY	Fluid Dynamics	<ol style="list-style-type: none"> 1. Identifies the values of fluid properties and relationship between them and understands the principles of continuity, momentum, and energy as applied to fluid motions. 2. Understands the pressure of fluids at rest and at all points. 3. Uses the condition at a boundary of immiscible fluids to solve problems 4. Predicts physical parameters that influence the flow in fluid mechanics. 5. Knows the relation between Cartesian components of stress
III	11SP18/3E/RMT	Resource Management Techniques	<ol style="list-style-type: none"> 1. Identify problems with fundamentals of LPP 2. Create and solve problems by various techniques 3. Use the applications in transportation problem. 4. Select various concepts in sequencing problems 5. Explain calculations through game theory
III	11SP18/3S/ASN	Analytical Skills	<ol style="list-style-type: none"> 1. Apply principles of Mathematics 2. Demonstrate the understanding of the

		for NET/SET. (Soft skills)	<p>algebraic concepts</p> <ol style="list-style-type: none"> 3. Prepare to classify the Differential Equations with respect to their order and linearity and solve problems with initial and boundary conditions
IV	11SP18/4C/CA2	Complex Analysis II	<ol style="list-style-type: none"> 1. Describe the connection between prime distribution and Zeta function 2. Analyze about family of functions defined in complex domain 3. Discuss mapping properties of elementary functions and some special functions 4. Recognize simple periodic and doubly periodic functions 5. Identify the functions which have either a double pole with zero residue or two simple poles with equal residues but opposite in signs
IV	11SP18/4C/FAN	Functional Analysis	<ol style="list-style-type: none"> 1. Identify Banach spaces and analyse their properties with other types of spaces. 2. Examine and identify properties of complex Banach spaces- Hilbert spaces. 3. Apply the analytical techniques and theoretical knowledge in Hilbert Spaces. Find out and determine orthonormal sets. 4. Explain various properties of Hilbert spaces. 5. Gain knowledge and experience of working with many pure mathematical problems.
IV	11SP18/4C/FSA	Fuzzy set theory and its applications	<ol style="list-style-type: none"> 1. Create problems using fuzzy concepts. 2. Identify and implement the fuzzy operations on sets. 3. Use the fuzzy numbers and their operations. 4. Discuss fuzzy logics with propositions and quantifiers. 5. Predict the logic of fuzzy in engineering fields.
IV	11SP18/4C/PYP	Python Programming	<ol style="list-style-type: none"> 1. Discuss on variables, expressions and statements of Python programming 2. Identify different Decision Making statements, Functions, Conditionals and recursion statement. 3. Enable the students to develop programs and simple application using python 4. Develop knowledge on Tuples and

			<p>Dictionaries.</p> <p>5. Explain different File handling operations , classes and objects</p>
IV	<p>(Option 1) 11SP18/4E5/MS2</p> <p>(Option 2) 11SP18/4E5/MT Y</p>	<p>Mathematical Statistics II</p> <p>Measure Theory</p>	<p>1. Apply the methods of solving many statistical problems by means of probability theory.</p> <p>2. Investigate statistical problems to draw conclusions about the unknown part.</p> <p>3. Explain about special cases of limit theorems.</p> <p>4. apply the procedures of significance tests in problems</p> <p>5. Analyze the theory dealing with the theory of estimation to estimate the unknown parameter.</p>
IV	11SP18/4S/LAT	<p>LATEX-A Document Preparation System (Soft skills)</p>	<p>1. Analyse the difference between Riemann integral and Lebesgue integral.</p> <p>2. Distinguish the relation between the class of Borel sets and the class of Lebesgue measurable sets.</p> <p>3. Extend the measure on a ring of sets to one on a generated σ- ring.</p> <p>4. Use the convergence of measurable functions in the theory of Probability.</p> <p>5. Compute multiple integrals which deals with measure and integration on the Cartesian product of spaces.</p>

M.COM CORPORATE SECRETARYSHIP

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	12SP18/1C/GCL	General & Commercial Law	<ol style="list-style-type: none"> 1. Knowledge of Fundamental Rights, Jurisdiction of Courts and writs 2. File a suit in compliance with the Code of Civil Procedure 3. Outline the various provisions to be complied for arbitration and conciliation proceedings 4. Knowledge of the various statutory requirements relating to transfer of property, stamps and registration of documents 5. Explain the Legal rules relating to Information Technology Act 2000 and Right to Information Act 2005
I	12SP18/1C/CA1	Advanced Corporate Accounting I	<ol style="list-style-type: none"> 1. Sound knowledge on legal and accounting procedures relating to issue, Forfeiture, Re-issue and Underwriting of Shares 2. Profound knowledge relating to issue of Debentures and methods of its Redemption 3. Prepare Final Accounts of Joint Stock Companies 4. Computation of goodwill and valuation of shares 5. Prepare Liquidator's final statement of Accounts
I	12SP18/1C/COF	Corporate Finance	<ol style="list-style-type: none"> 1. Explain financial concepts, functions, goals and the emerging role of the financial manager 2. Sound knowledge of capital structure, theories leverage, types, evaluation of its effect on shareholders return and planning an optimal capital structure 3. Compute Cost of Capital, Cost of Debt, Equity, Preference, Retained Earnings and Weighted average Cost of Capital and analyze the impact of overcapitalization and undercapitalization on the firm 4. Select projects for a firm with the aid of capital budgeting techniques of Payback, Net Present Value, Internal Rate of Return, Accounting Rate of Return and Profitability Index

			5. Determine working capital requirements of a firm and discuss the dividend concept, policy and theories
I	12SP18/1C/DTP	Direct Taxes and Tax Planning I	<ol style="list-style-type: none"> 1. Explain the exempted incomes and identify the residential status of a person and incidence of tax 2. Compute taxable salary income including taxable allowances and perquisites 3. Assess the Annual value and income from a property which is self occupied and let out 4. Compute Business and Professional Income considering the various allowable and inadmissible expense 5. Compute Capital Gains and do tax planning under various heads relating to salaries, house property , Business income and capital gains
I	12SP18/1E1/FIT	Elective Paper I – Fundamentals of Information Technology (Practicals)	<ol style="list-style-type: none"> 1. Explain the fundamentals of information technology 2. Evaluate basic operators in MS Excel and MS Word 3. Utilise accounting software and present reports using Tally 4. Apply tools used in Statistical Package SPSS for interpreting results for Two sample tests and correlation 5. Apply tools and interpret results using SPSS for ANOVA and chi-square test
II	12SP18/2C/DTP	Direct Taxes and Tax Planning II	<ol style="list-style-type: none"> 1. Compute the Income from other sources and outline the provisions relating to clubbing, set off and carry forward of losses 2. Outline the various deductions available under Sec 80 and compute the tax liability of Individual and develop tax planning skills 3. Compute the total income and tax liability of Firms, Partners and Companies 4. Explain the procedure of Assessment and filing of return 5. Explain the provisions relating to International Taxation and Assessment of Non Residents
II	12SP18/2C/CA2	Advanced	1. Profound knowledge of Amalgamation,

		Corporate Accounting II	<p>Absorption and External Reconstruction and their accounting treatment</p> <ol style="list-style-type: none"> 2. Apply accounting procedures in preparation of accounts of holding companies 3. Prepare final accounts of banking companies 4. Prepare final accounts of life and general insurance companies 5. Specialised knowledge of Human Resource Accounting, Accounting for Price level changes and National Accounting Standards
II	12SP18/2C/REM	Research Methodology	<ol style="list-style-type: none"> 1. Explain the research process, research problem, research design, data collection and scaling techniques 2. Sound knowledge of sampling fundamentals hypothesis formulation and testing 3. Apply appropriate statistical tests and perform T, Z and ANOVA tests 4. Use Statistical non- parametric tests of Chi square, Wilcoxon, Kruskal Wallis, Mann Whitney & Spearman's Rank correlation 5. Compile and interpret data for report writing and research papers
II	12SP18/2C/END	Entrepreneurial Development	<ol style="list-style-type: none"> 1. Examine and assess the qualities of successful entrepreneurs 2. Identify the need for development of Rural entrepreneurship, Agri Preneurship and Social Entrepreneurship in India and outlines the various incentives and subsidies offered by the government 3. Demonstrate skills to start up an enterprise and analyse the challenges faced by women entrepreneurs 4. Formulate business plans in accordance with the prescribed guidelines of the Planning Commission 5. Evaluate various sources of procuring finance and designs the optimum capital structure
II	12SP18/2E2/KNM	Elective Paper II -Knowledge Management	<ol style="list-style-type: none"> 1. Explain Knowledge Management, myths, knowledge management life cycle 2. Differentiate knowledge, intelligence,

			<p>experience, commonsense, data information and identifies the various types of knowledge</p> <ol style="list-style-type: none"> 3. Identify the challenges in building Knowledge Management System 4. Demonstrate the Nonaka's model of knowledge creation and transformation 5. Competent in capturing tacit knowledge
II	12SP18/2E/BUS	Elective Paper I - Business Communication	<ol style="list-style-type: none"> 1. Outline the principles of business communication, Barriers of Communication and Means of communication 2. Knowledge on Layout of a Business letter 3. Prepare Resume and draft Call letters 4. Draft sales letter 5. Prepare letters to banks and Insurance companies
III	12SP18/3C/ITL	Indirect Tax Laws	<ol style="list-style-type: none"> 1. Outline the importance of GST and the constitutional framework with respect to its levy 2. Narrate the procedure for registration under GST 3. Explain the essence of time in supply of goods and services and the valuation of the same 4. Elucidate the provisions relating to Input Tax Credit and e-Commerce in GST 5. Apply appropriate provisions for various circumstances under Customs Act
III	12SP18/3C/COA	Cost Accounting	<ol style="list-style-type: none"> 1. Profound knowledge on preparation of Cost Sheet and estimation of Tender Price and Activity Based Costing 2. Apply knowledge of techniques of material control and material pricing 3. Use different systems of wage payment in computation of remuneration and incentives of workers 4. Ability to allocate, apportion and absorb overheads 5. Sound knowledge on various methods of costing and able to identify appropriate method for the respective industry
III	12SP18/3C/CRL	Corporate Restructuring Laws	<ol style="list-style-type: none"> 1. Identify the various modes of Restructuring 2. Discuss the legalities of mergers and amalgamations.

			<ol style="list-style-type: none"> Evaluate the valuation of shares and brands of companies. Explain the various procedural and financial aspects of takeover Analyse the modes of corporate demergers, splits and divisions by agreements under arrangements
III	12SP18/3E3/ECL	Elective Paper - III -Economic Legislations	<ol style="list-style-type: none"> Outline of IDRA and the new industrial policy resolution Explain the provisions of FEMA, various transactions with regard to acquisition of property, Foreign Direct Investment and penal provision Outline the provisions of Consumer Protection Act and Competition Act Sound knowledge of intellectual property rights with special emphasis on trademarks , copyrights, registration procedures ,assignment and licensing provisions Discuss the Legal rules relating to Patents, registration procedures, Patents of additions
III	12SP18/3E4/ ORB	Elective Paper – IV - Organisational Behaviour	<ol style="list-style-type: none"> Discuss elements and models of Organisational Behaviour Assess individual differences, stress and group behaviours Discuss organisational conflicts, bargaining and negotiations Sound knowledge of organisational culture, climate, change and development Explain globalisation and internal organisational behaviour
III	12SP18/3E/PRA	Elective Paper – II Practical Accounting	<ol style="list-style-type: none"> Demonstrate the knowledge on fundamentals of accounting, concepts and conventions Prepare journal, ledger and subsidiary books Prepare Cash book and trial balance Prepare final accounts with simple adjustments Compute depreciation for fixed assets under straight line method and diminishing balance method
IV	12SP18/4C/SLR	Securities Laws And Regulation	<ol style="list-style-type: none"> Outline the Indian Financial System, capital market regulatory framework and

		Of Financial Markets	<p>provide an insight into the SCRA</p> <ol style="list-style-type: none"> Analyse Capital and money market instruments in India Discuss the concept of primary and secondary market situations ,players, underwrites, portfolio managers and stock exchange regulations and depositories Evaluate derivatives, its features and types Explain credit rating, its features and various credit rating agencies
IV	12SP18/4C/MAA	Management Accounting	<ol style="list-style-type: none"> Sound knowledge of utility of management accounting and ability to analyse Comparative Financial Statements, Common-size financial statements, Trend percentages and Ratios Analysis of flow of funds and cash with knowledge of working capital Prepare the different of types of budgets and compute the variances Analyse material labour overhead and sales variance Apply marginal costing techniques and use product pricing methods
IV	12SP18/4C/CSP	Company Secretarial Practice	<ol style="list-style-type: none"> Outline the procedure for incorporation of a company and its necessary documents ,their alteration and the types of companies, Gain wide knowledge on MCA, e-filing e-forms, drafting of prospectus Discuss the listing and delisting procedures and detailed requirements of a prospectus Assess the ways of raising capital, types of shares, procedure for transfer and transmission, dematerialisation and rematerialisation procedures as per the latest amendments of Companies Act 2013 Demonstrate the role of directors in company management , holding of company meetings according to secretarial standards SS1 to SS9 Analyse the modes of winding up of a company and the procedure relating to it
IV	12SP18/4C/LAL	Labour Laws	<ol style="list-style-type: none"> Explain Factories Act, 1948 Evaluate the objects of Workers

			Compensation Act, 1923 3. Profound knowledge of the Payment of Bonus Act, 1965, and Gratuity Act, 1972 4. Identify the scope and objects of the Minimum Wages Act, 1948 5. Explain the procedure for settlement of Industrial disputes, methods to resolve strikes and lockout
IV	12SP18/4E5/DRC	Elective Paper-V - Drafting And Conveyancing	1. Explain Factories Act, 1948 2. Evaluate the objects of Workers Compensation Act, 1923 3. Profound knowledge of the Payment of Bonus Act, 1965, and Gratuity Act, 1972 4. Identify the scope and objects of the Minimum Wages Act, 1948 5. Explain the procedure for settlement of Industrial disputes, methods to resolve strikes and lockout

MSC FOOD & NUTRITION

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	13SP18/1C/NUB	Nutritional Biochemistry	1. State and classify the functions of individual nutrients 2. Illustrate the structure, types and functions of nucleic acids 3. Describe and determine the metabolism of macronutrients, hemoglobin and nucleic acids 4. Assess the formation of high energy bonds in metabolic pathways 5. Integrate the role of enzymes and coenzymes in metabolism pathways
I	13SP18/1C/MT1	Medical Nutrition Therapy I	1. Identify the role of dietitian and describe the processes involved in delivering quality food and nutrition services for clinical conditions. 2. Demonstrate understanding of physiology, biochemistry, nutrient metabolism, nutrient – nutrient interaction and drug therapy. 3. Interpret, evaluate and use of current protocols and guidelines to make practical decisions in the treatment of critically ill patients.

			<ol style="list-style-type: none"> 4. Apply the knowledge of nutrition assessment and evidence-based nutrition intervention for diseases and conditions. 5. Analyze the pathophysiology of nutrition-related clinical conditions and evaluate the role of diet therapy 6. Discuss and develop disease specific prevention and treatment strategies of various communicable diseases, gastrointestinal, liver, pancreas and gallbladder diseases based on the current nutrition research.
I	13SP18/1E/NTC	Nutraceuticals	<ol style="list-style-type: none"> 1. Identify the history, concept of nutraceuticals 2. Explain the classification, mechanism of action of nutraceuticals 3. Classify the health benefits of nutraceuticals from various sources 4. Determine the significance of nutraceuticals in various disease condition 5. Assess the relationship between nutrient supplementation, gene expression and disease prevention 6. Compile the concepts of technologies in functional food industry
I	13SP18/1E/PHY	Applied Physiology	<ol style="list-style-type: none"> 1. Outline cell and state the homeostasis mechanisms in the body 2. Explain and relate the structure, functions and mechanism of each organ system in the body 3. Apply the knowledge on interrelations of organ systems to each other 4. Examine the integrated responses of the organ systems of the body to physiological and pathological stresses 5. Assess the pathophysiology of common diseases related to the organ systems of the body 6. Integrate physiologic conditions to health and disease
I	13SP18/1C/PR1	Analytical Techniques in Nutrition	<ol style="list-style-type: none"> 1. Repeat the experimentation for standardisation of procedures 2. Estimate the nutritive value of food samples 3. Apply standardised procedures and

			<p>report the results in respective units</p> <ol style="list-style-type: none"> Analyze and compare various biochemical parameters in blood, serum, urine and unknown sample with standard values Compare the nutrient composition food samples with Indian food composition table Compilation of experimentation with documentation of results
II	13SP18/2C/AFS	Advanced Food Science	<ol style="list-style-type: none"> Outline and explain the structure, composition and the nutritive value of food groups Discuss the processing techniques and the effect of cooking on various food components Apply the principles of subjective and in objective methods and evaluate the quality of foods. Analyse the emerging trends in food science and gain detail insight on food quality and standards Develop skills to undertake research in the field of food science and career in food industry
II	13SP18/2C/SRM	Applied Statistics and Research Methodology	<ol style="list-style-type: none"> Recall the definitions , theories and statistical procedures and gain critical thinking skills to effectively undertake research Demonstrate understanding of the concept of research and acquire the necessary skills to formulate research outline. Implement the skills in employing appropriate tools and techniques in structuring the research designs and solving the research problem. Classify the data collected using the principles of research methodology and draw conclusions by subjecting it to various statistical treatments Interpret and make valid judgements determining the statistical significance obtained Compile the information, develop new

			theories and propose alternative solutions based on the outcomes of the research.
II	13SP18/2C/MT2	Medical Nutrition Therapy II	<ol style="list-style-type: none"> 1. Recall and describe the work of dietary department with whom the dietitian collaborates in the delivery of food and nutrition services. 2. Demonstrate the Nutrition Care Process in complex clinical conditions like trauma, renal disorders, diabetes mellitus and cancer 3. Explain the mechanisms by which different foods, food constituents and unhealthy life style progresses the risk of Non-Communicable diseases. 4. Evaluate and apply scientific knowledge into clinical practice. 5. Plan, analyze, assess and develop disease specific dietary modification for the patient.
II	13SP18/2E/NSN	Nutrition in Special Needs	<ol style="list-style-type: none"> 1. Identify and define the children and elderly persons with special needs and emergency situations 2. Infer the role of nutrition for special children, elderly people, astronauts, soldiers, high altitude, arctic and Antarctic travelers and during disaster 3. Explain the importance of nutrition during special condition and emergency situations 4. Plan, develop and prioritize the diet for children with special needs, geriatric conditions.
II	13SP18/2E/FPN	(Interdisciplinary) Elective -4 Food Preservation	<ol style="list-style-type: none"> 1. Explain the importance of microorganisms in food preservation 2. Identify the concept of different methods of food preservation 3. Elaborate on the principles of food preservation including high and low temperature 4. Develop knowledge on different types of food packaging materials, requirements of effective packaging 5. Interpret food safety management systems and food regulations 6. Classify the various types of food

			additives
II	13SP18/2C/PR2	Advanced Food Science Practical	<ol style="list-style-type: none"> 1. Apply the principles of subjective and objective methods for evaluating the quality of food products 2. Demonstrate the crystallisation of sugar and assess the factors affecting crystallisation and egg foam formation 3. Acquire knowledge on enzymatic browning reactions and illustrate preventive methods 4. Estimate pectin strength, gluten content, and determine the smoking temperature of fats and oils. 5. Compare and differentiate traditional and convenience foods 6. Apply the principles of food science ,develop skills and gain hands on practical experience on an individual basis that motivate them to undertake research in the field of food science and career in food industry
III	13SP18/3C/CAL	Advanced Studies in Carbohydrates and Lipids	<ol style="list-style-type: none"> 1. State and acquire knowledge on digestion, absorption, transport and utilisation of nutrients in body 2. Explain and classify nutrients with examples 3. Determine the composition, characteristic and functional properties of polysaccharides Associate the role of nutrients in health and disease 4. Compare and gain knowledge on physiological significance, therapeutic use and toxic effects of various sugars 5. Integrate the recent research findings, scientific information and critical thinking into evidence- based practice in health and disease
III	13SP18/3C/MIV	Advanced Studies in Minerals and Vitamins	<ol style="list-style-type: none"> 1. Recalling the importance of nutrients and gain indepth knowledge in the latest research. advancements related to vitamins and minerals 2. Demonstrate understanding of the sources & functions and analyse the metabolism of vitamins and minerals. 3. Apply techniques to identify the biomarkers in the blood to assess the

			<p>nutrient levels and the associated deficiency symptoms.</p> <ol style="list-style-type: none"> Examine the correct method of processing of foods to prevent losses and discover the best method to preserve the nutrients in them Determination and assessment of interrelationship of minerals and vitamins with other nutrients and the role of antioxidants and phytochemicals. Estimate nutrient requirements. and recommend the daily allowance of vitamins and minerals for the improvement of the overall wellbeing
III	13SP18/3C/CLB	Clinical Biochemistry	 <ol style="list-style-type: none"> Define and relate the principles of clinical biochemistry and its importance in the diagnosis of diseases Understand the concepts of biochemical techniques and demonstrate skills in analysing and separating various biochemical compounds Apply the techniques of clinical biochemistry to identify disease conditions and the associated clinical and metabolic abnormalities Analyze and compare clinical parameters with the reference standards and draw conclusions on the functioning of various organs to identify comorbid conditions. Deduce and evaluate the clinical conditions based on the biochemical values and assess the prognosis of the disease for future management. Compile the clinical parameters and predict the effective treatment necessary in management of the disease
III	13SP18/3E/FDI	Food and Drug Interaction	<ol style="list-style-type: none"> List the sources of drugs, routes of drug administration Explain the drug pharmacokinetics and pharmacodynamics mechanism Classify the drug therapy for various diseases condition Determine the dietary modification during drug therapy Assess the effect of drug on nutrient


			<p>intake</p> <p>6. Compile the impact of food on drug absorption</p>
III	13SP18/3E/NPF	Nutrition and Physical Fitness	<ol style="list-style-type: none"> 1. Identify the classification of food by ICMR and Food guide pyramid 2. Describe the role of amino acids, lipids, carbohydrates, and vitamins in our body 3. Explain the functions, food sources, and consequences of deficiencies and toxicities for each of the essential macro and micro nutrients 4. Apply the current understanding of nutrition to aspects of physical fitness 5. Analyze and understand the principles in menu planning and alter food intake to reach the daily recommendation of an individual or an athlete. 6. Discuss and develop nutrition plan for athletes
III	13SP18/3C/PR3	Innovative Food Product Development	<ol style="list-style-type: none"> 1. Identify and understand the food products and process innovations in the market 2. Design and execute product innovation trials to efficiently optimise the product formulation and process 3. Learn methods of generating, evaluating and testing product ideas 4. Develop good communication and team work skills 5. Identify relevant components and plan a product launch 6. Learn methods of evaluating and monitoring the success of a launch
III	13SP18/3S/CSS	Computing skills	<ol style="list-style-type: none"> 1. Recall and describe the use of nutrition care process model 2. Use the Nutrition Care Process to make decisions and identify nutrition-related problems of different clinical cases 3. Apply principles of nutrition assessment and screening to determine and evaluate nutrition interventions for clinical conditions 4. Gather, analyze, and interpret the amino acid composition of foods 5. Use of different methods to evaluate the energy expenditure and physical activity

			of an individual
III		Self study paper- Advanced Paper for Registered Dietitian Credential and Competitive Examinations	<ol style="list-style-type: none"> 1. Perform self-assessment 2. Develop goals for self-improvement 3. Demonstrate professional attributes in all areas of practice 4. Evaluate, Compile and Apply the scientific knowledge in the field of food and nutrition into professional skill development
IV	13SP18/4C/EPR	Advanced Studies in Energy and Protein	<ol style="list-style-type: none"> 1. Relate and demonstrate the role of energy and protein in human Nutrition. 2. Interpret the role of energy for physical activities. 3. Distinguish between energy balance and maintenance of body weight. 4. Compare and analyze the requirement of protein, need for different types of protein such as novel protein, animal protein, vegetable protein and immune proteins in health. 5. Justify and evaluate the protein quality through various methods of assessment. 6. Compile the various deficiencies caused by amino acids and protein and overcoming them through mutual supplementation.
IV	13SP18/4C/PHN	Public Health Nutrition	<ol style="list-style-type: none"> 1. Identify and explain the various types of study designs commonly used in nutritional epidemiologic research. 2. Assess the factors associated with maternal and child nutrition 3. Classify the causes of malnutrition in India and perceive the knowledge of various nutrition intervention schemes provided. 4. Discuss on the various intervention programmes and policies concerned with micronutrient deficiency. 5. Analyse the basic concepts of food and nutrition security and summarize the food and nutrition security situation in India. 6. Categorise and formulate the various nutritional assessment techniques for the community
IV	13SP18/4E/ FMI	Food Microbiology	<ol style="list-style-type: none"> 1. State the taxonomy of bacteria.

			<ol style="list-style-type: none"> 2. Explain the importance of microbes in food fermentation. 3. Classify microbial food spoilage and the preservation methods. 4. Determine the industrial use of microbes 5. Assess the microbial toxins 6. Develop the microbiological evaluation of foods and quality systems
IV	13SP18/4C/PR4	Public Health Nutrition Practical	<ol style="list-style-type: none"> 1. Identify and explain the broad determinants of dietary and food aspects of health and wellbeing. 2. Analyse the principles of, and approaches to nutritional assessment. 3. Assess and deliver effective nutritional information to the vulnerable group. 4. Develop nutrition and health information to a wide range of audiences through diverse teaching aids. 5. Formulate and prepare low cost recipes for the nutritionally disadvantaged to combat the nutritional deficiencies.
IV	13SP18/4S/SWS	Scientific writing and presentation skills	<ol style="list-style-type: none"> 1. Develop a frame work for scientific writing. 2. Describe, Compare and Interpret various means for poster, oral presentation and copy editing. 3. Evaluate the use of websites, search engine, E-journals and E-library for research 4. Propose the authenticity of the research article using plagiarism checking soft ware.

MSC PHYSICS

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	14SP18/1C/MMP	Mathematical Physics	<ol style="list-style-type: none"> 1. Demonstrate the application of tensor is in Theoretical Physics, Mechanics, and Electromagnetic Theory. 2. Solve physically relevant linear differential equations using standard methods, evaluate the generating functions and their orthogonality. 3. Explain the basic elements of complex

			<p>analysis, including the important integral theorems. Evaluate integrals and using the theory of functions of complex variables for solving problems in the field of engineering and science</p> <ol style="list-style-type: none"> 4. Evaluate the Fourier series , integrals and Transforms for given function and apply them to solve certain boundary value problems arising in physics and applied physics conveniently 5. Discuss the concepts of group theory and utilize the group representations for symmetry calculation
I	14SP18/1C/CMR	Classical Mechanics & Relativity	 <ol style="list-style-type: none"> 1. Understands the basics concepts of Newtonian mechanics. Formulating equation of motion of mechanical systems using Lagrangian and Hamilton's method 2. generate the equations of rigid body motion using the linear and angular momentum principles. Simplifying complex problems into simple systems by choosing the suitable solution method. 3. Able to formulate dynamical problems into first order differential equations based on Hamiltonian function which serves as the basis for further developments in the field mechanics. 4. Learn to approximate the expressions for kinetic and potential energy using the theory of small oscillations to obtain the linearized equation of motion. Translating the physical problem into simpler matrix form and applying appropriate mathematical tool to solve the equations. 5. Gains knowledge on the basic ideas and equations of Einstein's Special Theory of Relativity. Acquire knowledge on relativistic Lagrangian and Hamiltonian for a free particle.
I	14SP18/1C/EM1	Electromagnetic Theory I	<ol style="list-style-type: none"> 1. Compute the terms, formulae, boundary conditions to solve electrostatic problems.

			<ol style="list-style-type: none"> Utilize the Separation of variables, Method of images mathematical tool to solve the potential problems. Formulate the fundamental laws of dielectric system. Demonstrate the analogous between electrostatics and magnetostatics and formulate its laws Predict the changes in the static theory on applying the dynamic conditions, appreciate the unification of electricity and magnetism through Maxwell's equation.
I	14SP18/1C/PR1	*General Experiments	<ol style="list-style-type: none"> Design thermodynamical experimental unit to examine the physical constants. Analyze the principles and properties of electromagnetic radiation using general and modern optics experiments. Revise basic concepts of mechanics with different experiments. Apply the basic theory of semiconductors and magnetism and understand it through their experiments. Identify the type of radiation with the help of nuclear experiment.
I	14SP18/1E1/ELS	Electronics	<ol style="list-style-type: none"> Discuss various characteristics semiconductors, transistors and with that memory devices. Analyze output of different semiconductor devices in different operating modes. Design simple combinational and sequential logic circuits. Design Monostable and Astable Multivibrators using discrete components. Analyze and design solid state power amplifier circuits.
II	14SP18/2C/QM1	Quantum Mechanics - I	<ol style="list-style-type: none"> Demonstrates a clear understanding of the basic postulates of quantum mechanics which serve to formalize the rules of quantum mechanics Apply and analyse the Schrodinger equation to solve one dimensional

			<p>problems</p> <ol style="list-style-type: none"> 3. Analyse the Schrodinger equation for particles in different three dimensional potentials 4. Discuss the various representations, space time symmetries and formulations of time evolution 5. Can formulate and analyse the approximation methods for various quantum mechanical problems
II	14SP18/2C/STM	Statistical Mechanics	 <ol style="list-style-type: none"> 1. Draw inferences and making the deductions of some average or most probable properties of large assemblies of electrons, atoms, molecules, quanta etc., 2. Learn to apply Classical Statistics method to simple and selected problems that follow classical dynamics. 3. Differentiate various systems as the Micro-Canonical, Canonical, and Grand Canonical Ensembles and able to apply advanced mathematical techniques to analyze the same. 4. Inspect the importance and consequences of quantum mechanics for macroscopic particle systems and able to compare it with different microscopic models. Use the tools and methodologies of quantum statistics, such as Fermi-Dirac and Bose-Einstein statistics, to solve problems in some physical systems. 5. Apply the techniques involved in first and second order phase transitions to different thermodynamic systems. Gets acquainted with necessary topics that lead them to expand their knowledge in the recent research field of statistical mechanics.
II	14SP18/2C/EM2	Electromagnetic Theory II	<ol style="list-style-type: none"> 1. Discuss the electromagnetic potentials and gauge transformations. Calculate force, momentum and energy of the electromagnetic field. 2. Explain retarded potentials and radiation associated with various

			<p>charge configuration.</p> <ol style="list-style-type: none"> 3. Outline electromagnetic waves and their propagation in vacuum and in media. 4. Compare the electromagnetic waves and their propagation in conductors and in dielectric systems. 5. Discuss the concepts of guided structures like transmission lines.
II	14SP18/2C/PR2	Electronics Experiments	<ol style="list-style-type: none"> 1. Explain the construction of simple electronic circuits 2. Apply the theoretical concepts behind electronics experiments 3. Compile the characteristics of transistors, amplifiers, oscillators and filters. 4. Compare the conceptual differences between analog and digital electronics. 5. Demonstrate practically the response of various special purpose electronic devices.
II	14SP18/2E2/MSY	Molecular Spectroscopy	<ol style="list-style-type: none"> 1. Apply the techniques of microwave and electronic spectroscopy to explain the structure of molecules. 2. Use the vibrational spectra for analyzing the different type of samples. 3. Explain the principle of Raman spectroscopy and its applications in the different field of science & Technology. 4. Discuss different resonance spectroscopic techniques and its applications in various fields. 5. Compile different spectroscopic problems and interpret its results
II	14SP18/2E/MTG	Medical Technology	<ol style="list-style-type: none"> 1. Explain the origin of biosignal and basic physical components of medical instruments. 2. Analyse the functions and principles of various biomedical equipments used in heart and brain diagnosis. 3. Detail clinical diagnosis and relevant therapeutic procedures with basic

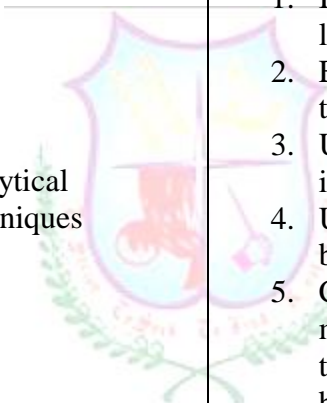
			<p>instruments.</p> <ol style="list-style-type: none"> 4. Compare the different types of imaging system with its applications. 5. Discuss the Laser and its applications for diagnosis and Therapy.
III	14SP18/3C/QM2	Quantum Mechanics - II	<ol style="list-style-type: none"> 1. Explain the concepts of angular momenta and spin, as well as the rules for their quantization and addition. 2. Analyse scattering cross section, optical theorem and low energy scattering 3. Can analyse the application of time dependent approximation method to semi classical treatment of atom in an electromagnetic field 4. Discuss the relativistic quantum mechanical equations namely, Klein-Gordon and Dirac equations and the phenomena accounted by them like electron spin and magnetic moment 5. Explain the phenomena of covariance, draw and discuss the Feynman graphs for different interactions
III	14SP18/3C/SSP	Solid State Physics	<ol style="list-style-type: none"> 1. Develops the proficiency on the basic concepts that are used to describe the structure and physical properties of crystalline substances. Able to analyze different types of matter depending on nature of chemical bonds and their properties. Should be able to analyze the crystal structures by applying crystallographic parameters. 2. Evaluate and analyze the electrical properties of solids. Realizing the importance of conceptual understanding of electron transport and energy related systems and thus applying it to study the properties of crystalline structures. 3. Differentiate between metals, insulators and semiconductors through the study of energy band theory. Gets acquainted to various approximation techniques and theoretical models to analyze and interpret the behavior of

			<p>electrons in semiconductor devices.</p> <ol style="list-style-type: none"> Construct the Fermi surface for SC, BCC and FCC crystalline structure and also learn to analyze the band structures of direct and indirect band gap semiconductors. Understands the basic elements of solid state electronics: Intrinsic and impurity doped semiconductors. Invokes objective knowledge on superconductors and to analyze the properties of superconducting materials
III	14SP18/3C/MPC	Microprocessor 8085 and Microcontroller 8051	<ol style="list-style-type: none"> Explain the construction and organization of Microprocessor 8085 Design various peripheral devices to interface with 8085 Microprocessor Discuss the construction and organization of Microcontroller 8051 Prepare and compile the programs to perform mathematical operations, interfacing peripheral devices using 8085 and 8051 Evaluate the compiled programs towards the various interface applications.
III	14SP18/3C/PR3	*Microprocessor 8085 & Microcontroller 8051 Experiments	<ol style="list-style-type: none"> Develop the simple assembly language programs using microprocessor 8085. To demonstrate the assembly language programming for delays & subroutines. Demonstrate the programming & interfacing of 8255 Programmable Peripheral Interface. 9. To demonstrate the interfacing of 8279 Display and keyboard controller. Examine the Working of hardware interrupts and be able to distinguish between inbuilt interrupts and hardware interrupts. Perform the various applications of 8085 microprocessor and 8051 microcontroller. Program 8051 microcontroller for various internal organization uses. To Interface peripheral devices with 8051

			microcontroller for instrumentation applications
III	14SP18/3E3/CMC	Computational Methods and C Programming	<ol style="list-style-type: none"> 1. Solve large systems of linear, transcendental and simultaneous equations numerically 2. Analyse data by constructing appropriate polynomials using methods like interpolation and principles of Least Squares 3. Evaluate numerical differentiation and integration of functions 4. Apply the basics of C programming language to write programs for simple computing problems 5. Construct C programs using decision making statements, arrays, functions and other features of C language in real life applications
III	14SP18/3E/PHO	Digital Photography	<ol style="list-style-type: none"> 1. Demonstrate the importance of light in photography 2. Create an habit of looking closely at the visible world around and build up confidence in camera handling with different camera types 3. Demonstrate the essential skills required to become a professional photographer 4. Outline the fundamental technical aspects of photographing with a digital camera. 5. Utilize the unique and unlimited power of post processing of a digital image and unleash their creative potential.
IV	14SP18/4C/NPP	Nuclear and Particle Physics	<ol style="list-style-type: none"> 1. Discuss forces, interactions and potentials between nucleons from the results of various scattering processes. 2. Explain different nuclear reactions and formulate their laws and equations. 3. Compare various decay processes (α, β, γ) and selection rules of nuclear reactions. 4. Demonstrate various predicted nuclear models to describe the properties of the atomic nuclei. 5. Outline the fundamentals of elementary particles and utilize the

			concept of group theory to generate ways of representation of particles.
IV	14SP18/4C/PR4	Computational Methods & C Programming Experiments	<ol style="list-style-type: none"> 1. Execute , debug, and document programs in C 2. Apply input and output routines 3. Evaluate numerical problems with programs using loops and decision making statements 4. Evaluate numerical problems using C programming data structures like arrays 5. Demonstrate proficiency in implementing programs using functions
IV	14SP18/4E4/NST	Nano Science and NanoTechnology	<ol style="list-style-type: none"> 1. Outline the basic science of materials at the nanometre scale. 2. Utilize the the properties of nano materials to identify their e 0D, 1D and 2D nature. 3. Revise the synthesis of nanomaterials and the impact of nanomaterials on environment. 4. Explain the principles of characterization of nanomaterials and nanostructures. 5. Assess and Design the preparation strategies of nanomaterials suited for various industries.
IV	14SP18/4E5/XRC	X- Ray Crystallography	<ol style="list-style-type: none"> 1. Explain concepts such as lattice, point and space groups 2. Explain fundamental theoretical concepts of X-ray diffraction and discuss the different diffraction methods 3. Interpret the Phase problem and various methods of its solution. Evaluate and assign structure to X-ray diffraction patterns. 4. Explain the instrumentation and hardware used in X-ray diffraction, collection and reduction of raw single crystal diffraction data 5. Explain the methods of refinement of crystal data and interpreting data for structural and conformational analysis

MSC BIOCHEMISTRY

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	15SP18/1C/CHL	Chemistry Of Life	<ol style="list-style-type: none"> 1. Harness the fundamentals of biological macro molecules in biological systems 2. Apply the concept gained in modelling the structure of protein and nucleic acids in molecular research. 3. Interpret the role of various biological structures in cell to cell interactions 4. Creatively comprehend the role of membrane components with their biological functions 5. Apply the molecular mechanism behind the transport of solutes and signals across the membrane in drug delivery process
I	15SP18/1C/ABC	 Analytical Techniques	<ol style="list-style-type: none"> 1. Identify safety signs and follow safe lab practices. 2. Explain various chromatographic techniques and apply them practically 3. Use appropriate electrophoretic method in separation of biomolecules 4. Use radioactivity and microscopy in biochemical analysis. 5. Compare various spectroscopic methods; choose and apply suitable techniques to quantify different biomolecules
I	15SP18/1C/HPH	Human Physiology	<ol style="list-style-type: none"> 1. Explain the human digestive system and learn to calculate Basal metabolic rate to prevent obesity and maintain good health. 2. Discuss the functions of brain and spinal cord and the mechanism of synaptic transmission. 3. Explain the structure and function of kidney and nephrons to learn the concept of dialysis and kidney transplantation. 4. Discuss the importance of cardiac and respiratory system. To create awareness on cardiovascular and respiratory diseases. 5. Practice about personal hygiene

			&reduce infertility problem. 6. Significance of cord banking and therapeutic uses of stem cells.
I	15SP18/1E/GNT	Elective-Genetics	1. Discuss about the chromosomal organization, structure, function and identify chromosomal anomalies both structural and numerical. 2. Explain and analyze Mendelian Genetics & Deviation from Mendelian Genetics. 3. Identify the reason for inheritance of genetic diseases and predict the nature of inheritance. 4. Explain the genetic basis of diseases of Aminoacid metabolism, identify the genes of coronary heart disease and discuss about human genetic diseases. 5. Predict the genetic basis of Neurogenetic diseases and apply the knowledge of genetics in drug dosage determination
I	15SP18/1E/BBC	Elective-Biostatistics and Biochemical Calculations	1. Apply the knowledge in identifying Data characteristics and form of distribution of data structure and its role in determining inferences 2. Recognize when and why statistical tests are needed and use technology to perform descriptive and inferential data analysis 3. Determine the exact method of Data analysis for problem under investigation and make use of appropriate statistical software 4. Analyse the knowledge in the preparation chemical reagents used in laboratories and industries 5. Examine the knowledge in eliminating the contamination by identifying the microbial growth studies and problems of biomolecules
II	15SP18/2C/EBY	Enzyme Biochemistry	1. Consider the role of various factors in designing enzymes with optimal activity for various applications 2. Comprehend the role of aminoacids in enzyme activity by various mechanisms and apply in the field of

			<p>enzyme engineering.</p> <ol style="list-style-type: none"> 3. Predict the role of cofactors and multienzymes in living systems 4. Apply the kinetics of enzyme as tool in the fields of industry, medicine and agriculture. 5. Use the knowledge in extraction and purification of new enzymes and for designing artificial enzymes.
II	15SP18/2C/MRG	Metabolism And Regulation	<ol style="list-style-type: none"> 1. Analyse the biochemical energy generation through carbohydrate metabolism. 2. Explain Energy yielding and energy requiring reactions in life and diversity of metabolic reactions in amino acid pathway 3. Outlines lipid metabolism with respect to several human diseases ,due to the defects in the metabolic pathway 4. Analyse the intergration of biochemical process with specific control sites and key junctions. 5. Use nucleotide metabolism and apply the knowledge in molecular biology.
II	15SP18/2C/HST	Hormones And Signal Transduction	<ol style="list-style-type: none"> 1. Outline basics of endocrinology; communicate relationships between nervous and endocrine system 2. Explain the biological role and pathological implications of various hormones 3. Discuss receptors and signal processes which regulate calcium metabolism 4. Explain GPCR mediated signaling pathways and examine their role in bacterial infections 5. Analyse the MAP kinase and nuclear receptor mediated pathway and Analyse signaling cross talk
II	15SP18/2E/RMT	Elective-Research Methodology	<ol style="list-style-type: none"> 1. Apply for research funding, fellowship and grants and write thesis. 2. Explain stages of drug development and clinical trials .Maintain animals for research and toxicity studies ethically. 3. Discuss the methods of extraction from plants, free radical damage, lipid

			<p>peroxidation and assess them.</p> <ol style="list-style-type: none"> Outline the fundamentals of nanotechnology, cell line studies, sequence analysis-DNA and amino acid sequencer. Explain principle instrumentation and applications of spectroscopy.
II	15SP18/2C/PL1	Core Practical – I	<ol style="list-style-type: none"> Analyse the Moisture and Ash content of foods Estimate Iron, Copper, Starch, Glycogen, Sterol and Riboflavin in food samples Separate Biomolecules by appropriate chromatographic methods
II	15SP18/2C/PL2	Core Practical – II	<ol style="list-style-type: none"> Separate proteins, isolate nucleic acids and organelles from biological sources Carry out enzyme kinetic assays Analyze and identify phyto constituents
III	15SP18/3C/MOL	Molecular Biology	<ol style="list-style-type: none"> Explain the Molecular basis of Cell division, evaluate the use of Replication inhibitors, identify the cell cycle check points. Discuss the basis of protein formation & Segregation, analyze the use of translation inhibitors Explain the Molecular mechanisms underlying Gene Regulations, compare the prokaryotic and eukaryotic gene regulation Analyze the role of histone & DNA methylation in gene expression, discuss about epigenetics and inheritance Discuss about molecular basis of cancer, Explain the role of tumor viruses, Assess the use of onco protein molecules in diagnosis and therapy.
III	15SP18/3C/CBI	Clinical Biochemistry & Biomedical Instrumentation	<ol style="list-style-type: none"> Compare different diseases etiologically. Discuss the etiology, pathology and manifestations of disorders, cardiovascular and respiratory diseases. Explain the etiology, pathology and manifestations of common Kidney, liver, Intestinal and pancreatic diseases. Discuss the principle and working of

			<p>various diagnostic tools: identify and use appropriate diagnostic method for each disease and interpret the results.</p> <p>5. Explain the principle and working of various therapeutic instruments; identify and use appropriate therapeutic method for each disease.</p>
III	15SP18/3E/PCY	Elective - Pharmacology	<ol style="list-style-type: none"> 1. Explain the pharmacokinetic, pharmacodynamic and drug development processes 2. Discuss the mechanism of action and the toxic effects of various anti infective agents 3. Explain the different types of cardiac and gastrointestinal drugs 4. Discuss the adrenergic, cholinergic and CNS drugs. 5. Discuss the respiratory disorder drugs, hormone and chemotherapeutic agents
III	15SP18/3S/CSK	Soft skill - Computing Skills	<ol style="list-style-type: none"> 1. Explain the concept of hardware and software and use MS-Word. 2. Analyse data with Excel sheets and make presentations with powerpoint 3. Discuss the concept of Internet and utilize internet for academic activities
IV	15SP18/4C/IMG	Immunology	<ol style="list-style-type: none"> 1. Explain the types of immunity, immune organs, lymphatic circulation and determinants of immunity 2. Discuss on the antigenic nature, factors affecting antigenicity, epitopes, adjuvants, haptens, multigene organization, the concepts of gene rearrangements in antibody diversity and clonal selection 3. Explain the Immunological techniques, T cell receptor structure and rearrangement, cell mediated immunity, presentation of endogenous and exogenous antigens, MHC and HLA 4. Outline the importance of Mab production, B cell mediated immunity, activation of complements, Complement deficiencies, genetic basis of immunological disorders, different types of hypersensitivity and

			<p>autoimmune diseases</p> <p>5. Analyse the Importance of vaccination in children and adult, types of vaccination, production of vaccines by recombinant technology, tumour antigens and chemotherapeutic agents</p>
IV	15SP18/4C/BIT	Biotechnology	<ol style="list-style-type: none"> 1. Discuss about the various tools of rDNA technology compare various vectors , select suitable hosts for cloning, 2. Explain about gene isolation and amplification, Compare various gene amplification techniques, demonstrate the collection and purification of proteins 3. Discuss about cell cultures, gene knock outs, predict the use of DNA probes, Analyze the use of r DNA in production of insulin, interferon, vaccines. 4. Assess the use of Plant tissue cultures, Apply the knowledge to produce improved crop varieties, 5. Apply the knowledge about Bioremediation towards solving common environmental pollution , Demonstrate the Industrial production of biofuels, vitamins B12, SCPs.
IV	15SP18/4E/BIF	Elective – Bioinformatics	<ol style="list-style-type: none"> 1. Explain the computational methods in Biology; retrieve information from Biological databases. 2. Analyse sequences and find relationships using computational tools 3. Discuss genomic data and Use appropriate tools in genomic research 4. Explain the concepts in proteomics; Predict protein structure and characterise it. 5. Discuss the steps in drug development; use of appropriate insilico tools in each step.
IV	15SP18/4S/PSK	Soft skill- Presentation Skills	<ol style="list-style-type: none"> 1. Communicate their thoughts and ideas without fear. 2. Face Interview confidently ; 3. Discuss scientific report writing and preparation of case studies.

			4. Scientific editing and preparation of proposal for grants were also thought.
IV	15SP18/4C/PL3	Core Practical- III	<ol style="list-style-type: none"> 1. Estimate the total RBC, WBC, Platelet count , Differential count, ESR, PCV, Hb (Hb Indices – MCV,MCH,MCHC) and Blood grouping 2. Use ELISA and kit methods to estimate the biological compounds 3. Use Colorimeter, Spectrophotometer, Flame photometer to estimate compounds in the biological specimens
IV	15SP18/4C/PL4	Core Practical- IV	<ol style="list-style-type: none"> 1. Explain Ouchterlony double diffusion Cross over Immunelectrophoresis, Isolation of Genomic and Plasmid DNA, Restriction digestion and Ligation, PCR and transformation. 2. Assay Antioxidants in serum 3. Analyse antioxidant activity of Phytochemicals.

MSC APPLIED MICROBIOLOGY

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	16SP18/1C/GMY	General Microbiology	<ol style="list-style-type: none"> 1. Analyse the basics concepts of microorganisms, its developments and its classification for microbial diversity and its applications. 2. Apply the knowledge acquired on different microscopes, working principles for visualization and study of structural features of microorganisms. 3. Compare eukaryotic and prokaryotic cell structures, observe and interpret them through staining procedures 4. Use cultivation procedures to identify and differentiate morphological, biochemical and antibacterial properties. 5. Employ sterilization techniques in health, food, environmental, industrial, domestic and pharmaceutical domains.
I	16SP18/1C/MPY	Microbial Physiology	<ol style="list-style-type: none"> 1. Apply knowledge about nutritional requirement, modes of nutrient transport in microorganisms to various

			<p>disciplines of Microbiology</p> <ol style="list-style-type: none"> Analyse microbial growth, factors influencing growth and its measurement techniques for applications in various industries. Compare various metabolic pathways and discuss the properties and functions of enzymes Examine anaerobic respiration and biosynthetic pathways to enhance/control microbial growth Assimilate methods involved in microbial photosynthesis and bioluminescence
I	16SP18/1C/BLY	Bacteriology	 <ol style="list-style-type: none"> Differentiate normal flora from pathogens, principles of Gnotobiosis, analyse the structure and factors contributing to pathogenicity and acquire the skill of sample collection, transport and processing for bacterial identification Effectively use the knowledge acquired on bacterial diseases and classification for diagnosing Gram positive bacteria and spore formers. Analyse the implications of and Mycobacterial diseases and drug resistance in the society. Detect the etiology and virulence factors of Gram negative bacterial diseases, interpreting the laboratory results after following standard operating procedures Use anaerobic cultivation methods for diagnosis of anaerobic infections and molecular, immunological methods for non-cultivable bacteria. Devise appropriate control measures in tackling hospital and zoonotic infections, following bio safety protocols for effective hospital waste disposal and antibiotic control policy in management of drug resistance.
I	16SP18/1E1/MYP	Mycology and Parasitology	<ol style="list-style-type: none"> Identify, Classify and Cultivate medically important fungi and parasites Evaluate the role of superficial and

			<p>systemic fungi</p> <ol style="list-style-type: none"> 3. Predict the importance of fungi causing opportunistic infections in immune compromised individuals. 4. Assess the role of Protozoans and Helminthes in anthroponotic and zoonotic infections. 5. Apply diagnostic techniques to identify, isolate and interpret fungal and parasitic infections and take appropriate preventive and chemotherapeutic measures
II	16SP18/2C/FDY	Food and Dairy Microbiology	 <ol style="list-style-type: none"> 1. Apply the role of microorganisms, various preservation techniques, and assess the growth factors of food pathogens in food industry. 2. Evaluate food contamination and spoilage, detect food pathogens based on physical, chemical and immunological methods and choose appropriate preservative techniques for food. 3. Identify and Analyse the role of pathogens in food borne infections and food poisoning and create awareness towards food borne outbreaks in India. 4. Assess the techniques in checking Milk quality, fermentation of milk and to perform production of fermented milk foods at large scale level 5. Plan hygiene and sanitation protocol, apply Hazard analysis, Food laws and standards for good quality in food production
II	16SP18/2C/VLY	Virology	<ol style="list-style-type: none"> 1. Outline basics and essential concepts of virology which include the structure, classification, pathogenesis, replication, purification and disease control. 2. Compare the lifecycles of major groups of viruses and analyse their role in exploiting the host. 3. Apply contextual knowledge to assess arthropod borne viruses and viral plant diseases and acquire skills about various diagnostics and therapeutic measures for the viral diseases.

			<ol style="list-style-type: none"> Analyse and identify oncogenic viral infections and apply the concepts in viral infectious disease control, prevention and Treatment. Discuss viral vaccines and create awareness about the new emerging threats of viral diseases and modern approaches of virus control.
II	16SP18/2C/ARM	Analytical Tools and Research Methodology	<ol style="list-style-type: none"> Apply the principles and applications of types of spectrometry to various fields of research Demonstrate the applications of types of centrifuge and chromatography techniques for purification of biological substances Design strategies for use of advanced techniques of Electrophoresis, PCR, Scintillation counter, biosensors and microbial identification systems in research Utilize the Art of report and thesis writing for scientific communication Demonstrate the importance of scientific communication, ethical issues in research, plagiarism and IPR.
II	16SP18/2E2/BST	Biostatistics	<ol style="list-style-type: none"> Apply knowledge of data collection and presentation of data in various fields of Microbiology Assess and implement central tendency, deviation and error in the data collected during research Apply the knowledge of probability theory and its applications in research data analysis Use the methods of calculating correlation, regression in research data analysis and test the hypothesis Demonstrate the methods of analysis of variance in research and use statistical packages
II	16SP18/2E/VMC	Vermicomposting and Mushroom Cultivation	<ol style="list-style-type: none"> Distinguish the types of earthworms and feed needed for vermicomposting. Differentiate various methods of vermicomposting and its benefits to soil and plants. Assess the nutrient and medicinal value

			<p>of edible mushrooms and analyse effects of mushroom poisoning</p> <ol style="list-style-type: none"> 4. Apply the various methods of cultivation of button and oyster mushrooms for small-scale industries. 5. Assess the loss of productivity in mushroom yield due to pests and diseases and analyse the post-harvest practices.
II	16SP18/2C/PR1	General Microbiology and Microbial Physiology	<ol style="list-style-type: none"> 1. Apply sterilization, sanitation and disinfection methods with proper quality control in microbiology laboratories for effective use and disposal of microbes 2. Employ microscopes and staining techniques appropriately in determining the shape, size and other attributes of microbes 3. Formulate the parameters for optimal growth of bacteria and ways to combat them using proper antibiotic control techniques
II	16SP18/2C/PR2	Medical Microbiology	<ol style="list-style-type: none"> 1. Isolate and identify bacterial pathogens from clinical specimens through biochemical and antimicrobial sensitivity testing procedures. 2. Utilize practical skills for virus cultivation procedures using embryonated eggs and apply the scientific methods in identifying viruses from clinical samples. 3. Evaluate the role of microorganisms in a range of diseases and apply cultivation and identification methods for fungi and parasites.
III	16SP18/3C/ILY	Immunology	<ol style="list-style-type: none"> 1. Discuss cells and organs of immune system and its role in types of immunity 2. Evaluate the reactions between various antigens and antibodies and apply the knowledge in diagnosing diseases and disorders 3. Analyse the concepts and factors influencing immunity, HLA typing and its applications and compare the role of MHC in graft rejection in

			<p>transplantation and plan appropriate strategies</p> <ol style="list-style-type: none"> 4. Employ the principles of immunity for vaccine development and analyse types of hypersensitivity reactions 5. Evaluate autoimmune and immune deficiency disorders and apply immunotherapy in modulating oncogenesis.
III	16SP18/3C/EMY	Environmental Microbiology	<ol style="list-style-type: none"> 1. Infer the activities and functions of air microflora and their impact on air quality. 2. Analyse and categorize the crucial role of microbes in sewage water treatment, water pollution and water quality. 3. Appraise the microbial processes involved in the treatment of solid wastes and determine its ability in production of food fuel and biodegradants. 4. Compare and contrast the role and benefits of soil microbes in nutrient cycling and plant growth. 5. Assess the survival and spread of microbes through plant pathogenesis and apply microbes as biopesticides.
III	16SP18/3E3/INP	Industrial and Pharmaceutical Microbiology	<ol style="list-style-type: none"> 1. Assimilate knowledge on basics and different stages in Industrial fermentation process. 2. Analyse the principles of growth kinetics, methods of measure microbial growth measurement and inoculum development process in industries 3. Apply theoretical knowledge on design, construction and working of different types of fermenters and medium formulation on an industrial scale. 4. Plan industrial production of microbial products and stages in downstream process. 5. Analyse production of pharmaceutical products in detail and apply information on recent trends in biotechnological and microbiological patents in industries
III	16SP18/3E/GLP	Gardening and	<ol style="list-style-type: none"> 1. Outline fundamentals of gardening and

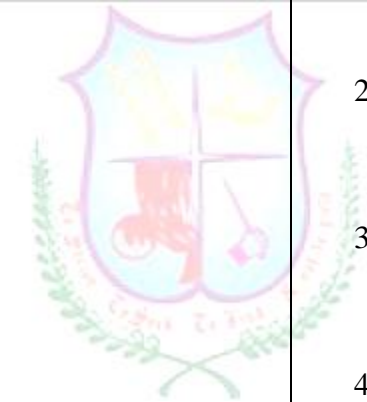
		Landscaping	<ul style="list-style-type: none"> seed propagation 2. Discuss the history of gardening and various styles of gardening 3. Create ideas on Lawn making and plants maintenance in Nurseries 4. Cultivate different plant species in gardens 5. Identify various types of Landscaping.
III	16SP18/3S/CSC	Computing Skills for competitive examinations	<ul style="list-style-type: none"> 1. Outline the basic concepts and formulae in Mathematics 2. Compute metric conversions and apply them in various practical circumstances. 3. Appraise various patterns of logical reasoning and aptitude based questions which forms the important criteria in competitive examinations.
IV	16SP18/4C/PR3	Immunology and Molecular Biology	<ul style="list-style-type: none"> 1. Identify the importance of proteins, lipids and properties of plasmids in rDNA technology 2. Evaluate the role of Vectors in Gene Cloning 3. Apply the principles of selection, construction, screening of recombinants and application of artificial transformation techniques. 4. Utilize the Molecular Techniques for DNA and Protein analysis 5. Discuss the application of Genetic Engineering in the field of Agriculture and medicine towards scientific research
IV	16SP18/4E4/MIG	Microbial Genetics	<ul style="list-style-type: none"> 1. Discuss the significance of genetic material. 2. Explain the types of RNA and protein synthesis machinery 3. Analyse the impact of mutation and its repair mechanism. 4. Identifying and distinguishing genetic regulatory mechanisms 5. Summarise gene transfer mechanisms for experimental study.
IV	16SP18/4E5/BIF	Bioinformatics	<ul style="list-style-type: none"> 1. Effectively use internet in biological database searching, communicating biological data by depositing, storing and retrieving sequences and structures.


			<ol style="list-style-type: none"> Analyse and identify genes and proteins from a set of sequences using appropriate bioinformatic tools Apply the evolutionary relatedness in predicting structure, function of biomolecules, metabolism and to Perform insilico drug designing, Able to prepare, store and analyse gene libraries for whole genome analysis and sequencing Deduce the structure of proteins, gene expressions, analyse the variations thus applying Bioinformatics in several fields for benefit of the society.
IV	16SP18/4S/EEP	Essentials of Entrepreneurship	<ol style="list-style-type: none"> Practise presentation skills, for attending interviews with confidence. Outline the needs and critically assess the Pros and Cons of Women Entrepreneurship. Employ necessary inputs to start a small scale business
IV	16SP18/4C/PR3	Immunology and Molecular Biology	<ol style="list-style-type: none"> Interpret Immunological tests for diagnostic purposes Undertake novel research with techniques like DNA extraction, sequencing, gel electrophoresis and gene transfer mechanisms Apply the techniques of various molecular and immunological procedures to enhance job skills
IV	16SP18/4C/PR4	Environmental Microbiology	<ol style="list-style-type: none"> Analyse nutritive value of soil and associate them with the microbes in the soil Examination and identification of Pathogenic Microorganisms in water and apply their implications to the society. Assess the role of Microorganisms and their enzymes in the preparation of manure
IV	16SP18/4C/PR5	Food and Industrial Microbiology	<ol style="list-style-type: none"> Employ quality control methods on milk and dairy products Check Food samples and assess the quality of food Gain entrepreneurial skill in production of products related to Food, Beverage

			and Pharmaceutical Industry.
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MASTER OF BUSINESS ADMINISTRATION

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	MBA18/BC/POM	Bridge Course on Principles of Management	<ol style="list-style-type: none"> 1. Understand the concepts and functions of management.. 2. Evaluate leadership styles to anticipate the consequences of each leadership style. 3. Assess and Analyse how organizations adapt to uncertain environment in 4. order to apply techniques which influence and control the internal environment.
I	MBA18/1C/OBM	Organisational Behaviour	 <ol style="list-style-type: none"> 1. Analyse the behaviour of individuals and groups in organisations in terms of organisational models and concepts 2. Apply organisational behaviour concepts, models and theories to real life situations in the <i>organisational</i> and personal life 3. Exercise skills in managing and resolving organizational problems relating to individual and group interactions 4. Apply and demonstrate Knowledge on Recent Trends and Multi cultural issues relevant to the behaviour of an individual in an Organisation.
I	MBA18/1C/ACM	Accounting for Managers	<ol style="list-style-type: none"> 1. Analyse and interpret financial statements 2. Apply marginal costing, cost volume profit analysis and budgetary control techniques in decision making process 3. Possess a managerial outlook at accounts
I	MBA18/1C/MEM	Managerial Economics	<ol style="list-style-type: none"> 1. Understand the roles of managers in firms and understand the internal and external decisions to be made by managers.

			<ol style="list-style-type: none"> Analyze the demand and supply conditions and design competition strategies, including costing, pricing, product differentiation, and market environment according to the natures of products and the structures of the markets. Examine real-world business problems with a systematic theoretical framework. Apply and demonstrate Knowledge on Recent Trends and Multi cultural issues relevant to the Economics Field.
I	MBA18/1C/BRT	Business Research and Techniques 	<ol style="list-style-type: none"> Possess knowledge in different types of research methods and techniques and be able to conduct business research Display skill in performing statistical and research analysis and Prepare structured reports that would help businesses make appropriate decisions Apply and demonstrate Knowledge on Recent Trends in the field of Business Research and application.
I	MBA18/1C/OPM	Operations Management	<ol style="list-style-type: none"> Understand the concepts underlying Operations Management as a functional area and its relevance in the management of a firm. Exhibit knowledge of Operations management in various areas for problem solving. Apply the principles of Operations management in practice and be aware of the emerging areas in Operations management Demonstrate Knowledge

			on Recent Trends and Multi cultural issues relevant to the field of Operations in an Organisation.
I	MBA18/SS1/BEH MBA18/SS1/BEA MBA18/SS1/BEB MBA18/SS1/BEC	Business English Communication-Higher Business English Communication-Vantage Business English Communication-Preliminary BusinessEnglish Communication-Basic	<ol style="list-style-type: none"> 1. Understand and demonstrate a good understanding of effective writing and business communications. 2. Express different genres of reading, writing and speaking from creative to critical and factual writing. 3. Identify short conversations and discussions, design business reports and company documents.
	MBA18/VE1/ASM	Value Education – I - Art of Self Management and Life skills 	<ol style="list-style-type: none"> 1. Understand and develop strategies for successful and joyous living. 2. Guide to healthy living by maintaining mental, physical and emotional well-being. 3. Equipped with the required level of training, skills and knowledge in First Aid and demonstrate Knowledge on Self Management and Life Skills.
	MBA18/SD/ED1	Skill Development - Entrepreneurial Skill Development –I	<ol style="list-style-type: none"> 1. Understand the idea generation process and the importance of entrepreneurship skills needed to run a business. 2. Have the ability to discern distinct entrepreneurial traits 3. Able to do the self-analysis, apply the elements of entrepreneurship in their real life and develop knowledge to start the venture.
	MBA18/BL1/DAE	Business Analysis Lab I – Data Analysis using Excel	<ol style="list-style-type: none"> 1. Understand and familiarize the important features of Excel. 2. Able to use in-built functions in Excel for simple calculation, apply features of Excel for decisionmaking 3. Apply and analyse data and

			present the processed information using advanced features of Excel
II	MBA18/2C/MMM	Marketing Management	<ol style="list-style-type: none"> 1. Understand the concepts of Marketing Management as a functional area and its relevance in the management of a firm. 2. Exhibit knowledge of Marketing management to develop a feasible Marketing solution for the firm. 3. Apply the principles of Marketing management in practice in an Organization and be aware of the emerging new practices in Marketing. 4. Apply and demonstrate Knowledge on Recent Trends and Multi cultural issues relevant to the functional domain of Marketing.
II	MBA18/2C/HRM	Human Resource Management	<ol style="list-style-type: none"> 1. Understand and gain the knowledge and skills needed to effectively manage human resources. 2. Compare the common methods for recruiting and selecting human resources 3. Examine and appraise contemporary issues as it relates to human resources 4. Apply and demonstrate Knowledge on Recent Trends and Multi cultural issues relevant to the functional domain of Human Resource Management 5. functional domain of Human Resource Management
II	MBA18/2C/FIM	Financial Management	<ol style="list-style-type: none"> 1. Possess an understanding of the techniques of managing finance in an organization 2. Use the concept of time value of money in making finance related decisions 3. Able to measure the cost of capital, identify the best

			<p>investment alternative and predict the change in the value of firm with respect to dividend decision</p> <p>4. Apply and demonstrate Knowledge on Recent Trends relevant to the functional domain Financial Management.</p>
II	MBA18/2C/QMS	Quality Management System	<p>1. Evaluate the principles of quality management and explain how these principles can be applied within quality management systems</p> <p>2. Identify the key aspects of the quality improvement cycle and to select and use appropriate tools and techniques for controlling, improving and measuring quality.</p> <p>3. Critically analyse the issues in quality management, including current issues and developments.</p> <p>4. Apply and demonstrate Knowledge on Recent Trends and Multi cultural issues relevant to Quality Management.</p>
II	MBA18/2C/LFB	Legal Framework of Business	<p>1. Understand about how business and legal matters intertwine.</p> <p>2. Gain a realistic understanding of how the law actually works.</p> <p>3. Be able to recognize and apply basic principles of law to various problems which business faces</p> <p>4. Apply and demonstrate Knowledge on Recent regulations in Legal Framework</p>
II	MBA18/2C/OPR	Operations Research	<p>1. Decide on the best course of action given the limitations in various resources with the objective of maximizing profit and/or minimizing loss</p> <p>2. Apply the appropriate mathematical</p>

			<p>techniques in problem solving for managerial decisionmaking</p> <ol style="list-style-type: none"> Facilitate quantitative solutions in business decision making under conditions of certainty, risk and uncertainty Demonstrate Knowledge on Recent research and analysis relevant to the field of Operations research.
II	MBA18/IE1/SOE	Interdisciplinary Elective I - Social Enterprise Management	<ol style="list-style-type: none"> Understand ethical issues in workplace and Corporate Social responsibility Identify the contemporary issues in management of social sector Create social enterprises through collaborative learning with social enterprises and Demonstrate knowledge relevant to the Social Enterprise Management.
II	MBA18/IE1/DVM	Interdisciplinary Elective I - Diversity Management	<ol style="list-style-type: none"> Posses an understanding of the varied culture in the global perspective Develop skills to handle critical cross-cultural issues in the management of multinational or transnational organization Predict the challenges in managing diverse work force and proactively develop ways combat them
II	MBA18/SS2/SAC	Self Assessment and Career Development	<ol style="list-style-type: none"> Familiarize with theoretical perspectives that determine successful career and career change. Identify and analyse the factors that affect future career decisions. Apply and demonstrate skills required for designing work profile for meaningful careers.
II	MBA18/2I/SIP	Summer Internship	<ol style="list-style-type: none"> Demonstrate knowledge on

		Programme (SIP)	<p>how management concepts are applied in real life scenario.</p> <ol style="list-style-type: none"> 2. Explore and exhibit research skills to solve real life business problems. 3. Apply appropriate judgment from the experience with enhanced logical, analytical and decision making skills.
II	MBA18/VE2/CSD	Value Education – II - Community Service and Development	<ol style="list-style-type: none"> 1. Understand the need for educating children and adult to improve their status in society 2. Exhibit skills to motivate people to develop the desire for better living by means of their own efforts 3. Develop programmes to aid the weaker sections of the society through community development and service.
II	MBA18/SD/ED2	Skill Development - Entrepreneurial Skill Development – II	<ol style="list-style-type: none"> 1. Understand the parameters to assess opportunities and constraints for new business ideas 2. Analyse the systematic process to select and screen a business idea 3. Design strategies for successful implementation of business ideas leading to venture creation
II	MBA18/BL2/DAS	Business Analysis Lab II – Data Analysis using SPSS	<ol style="list-style-type: none"> 1. Understand the SPSS concepts and to apply SPSS for data analysis. 2. Analyse and input data into SPSS, select appropriate data analysis techniques to perform requisite analyses using SPSS, 3. Apply and Interpret the data output for various decision making needs and design presentation of the output
III	MBA18/3C/IME	Information Management and ERP	<ol style="list-style-type: none"> 1. Understand the role of Management Information Systems in achieving business competitive advantage through

			<p>informed decision-making.</p> <ol style="list-style-type: none"> 2. Apply knowledge and skills learned to facilitate the acquisition, development, implementation, and management of information systems. 3. Effectively communicate strategic alternatives to facilitate decision-making and to learn how to use information technology in solving day to day business problems. 4. Apply and demonstrate Knowledge on Recent Trends and Multi cultural issues relevant to Information Management.
III	MBA18/IE2/DIM	Interdisciplinary Elective II - Disaster Management 	<ol style="list-style-type: none"> 1. Understand how to help themselves and guide others in disaster mitigation and preparedness measures 2. Possess knowledge on ways to respond to disasters 3. Gain knowledge on the framework of disaster management 4. Apply and demonstrate Knowledge on Recent Trends and issues relevant to Disaster Management
III	MBA18/IE2/TIM	Interdisciplinary Elective II - Technology Intervention and Innovative Practices in Management	<ol style="list-style-type: none"> 1. Gain knowledge about the technologies and methods used for effective decision making in an organization. 2. Analyze the big data analytic techniques for useful business applications. 3. Explore the applications of Big Data and Apply Knowledge on Recent Trends relevant to emerging trends in Technology and its impact on organisations.
III	MBA18/VE3/WIL	Value Education – III – Women In Leadership	<ol style="list-style-type: none"> 1. Familiarize and understand the significance of women in leadership.

			<ol style="list-style-type: none"> Analyse the contribution of women towards the development of societies and economies. Assess the leadership qualities using leadership tools.
III	MBA18/SD/ED3	Skill Development - Entrepreneurial Skill Development – III	<ol style="list-style-type: none"> Understand how to Design and develop business models Analyse the financial aspects for business and new ventures Design and prepare the business reports for new business models.
III	MBA 18/BL3/DAA	Business Analysis Lab III – Data Analysis using AMOS & R Programming	<ol style="list-style-type: none"> Acquire Basic knowledge of AMOS, SEM and R concepts Acquire knowledge of AMOS and SEM for designing models Apply the techniques of usage of analytical software to develop the best model fit for relevant research.
III	MBA18/SL/SLP	Self Learning Programme***	<ol style="list-style-type: none"> Have in depth knowledge on concepts and topics of interest. Explore and keep pace with continuous learning on e-learning platforms beyond classroom teaching. Demonstrate and apply the acquired knowledge in various facets of management
	MBA18/AC/*** Term Paper (Any one of the following areas of management)		
IV	MBA18/AC/MDI	Management Dynamics and Indian Ethos	<ol style="list-style-type: none"> Understand the need for research skills, logical and Analytical skills Exhibit better writing and communication skills Apply and demonstrate knowledge about multi disciplinary fields of management through continuous learning
IV	MBA18/AC/EAL	Educational Management, Administration and Leadership	
IV	MBA18/AC/WEE	Women Employment and Empowerment	
IV	MBA18/AC/SWE	Social and Women Entrepreneurship	
IV	MBA18/AC/ENM	Environmental Management	
IV	MBA18/4C/STM	Strategic Management	<ol style="list-style-type: none"> Understand the significance of internal and external

			<p>environment of business</p> <ol style="list-style-type: none"> Analyse and prepare organizational strategies that will be effective for the current business environment Devise strategic approaches to managing a business successfully in a global context Apply and demonstrate Knowledge on Recent Trends and Multi cultural issues relevant to Strategic Management.
IV	MBA18/SS3/MBE	Business Etiquette	<ol style="list-style-type: none"> Understand the concepts of business etiquette . Apply business etiquette rules in a wide variety of typical business situations. Apply and demonstrate Knowledge on Trends and Multi cultural issues relating to business etiquette.
I V	MBA18/4C/MIP	Management In Practice	<ol style="list-style-type: none"> Understand and develop Critical-thinking and analytical decision-making capabilities to investigate complex business problems to propose project-based solutions. Apply the theories and concepts of management learnt in classroom in business scenario. Demonstrate research based systematic problem solving skills which shall aid in business decision making.

MASTER OF COMPUTER APPLICATIONS

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	MCA18/1C/DCF	Digital Computer Fundamentals	<ol style="list-style-type: none"> 1. Gain a clear understanding of the concepts that underlie digital computer fundamentals along with logic circuits and implementations. 2. Define key mechanisms and analyse different logic gates and their realizations. 3. Correlate different Boolean expression simplification techniques and coordinate with its implementation. 4. Understand the steps involved in designing flip-flops and counters 5. Realize the possible micro operations that can be performed by means of Register Transfer Logic.
I	MCA18/1C/DSS	Data Structures	<ol style="list-style-type: none"> 1. Choose the Data structure to suit the given problem 2. Understand ,implement the operations of linear data structures 3. Design their own data structure according to the application need 4. Apply the tree, graph operations in real time 5. Develop any application using the data structures
I	MCA18/1C/PSP	Problem Solving and Programming	<ol style="list-style-type: none"> 1. Gain a clear understanding of the fundamentals of C programming and analyzing the efficiency of algorithm. 2. Gaining knowledge of syntax of C and managing various Input/Output operations 3. Understanding the decision making and branching statements 4. Analyzing the concept and implementation of different operations on arrays, functions ,structures and unions 5. Demonstration of file management in c with dynamic memory allocation. Understanding the concept of pointer and command line arguments
I	MCA18/1C/SEG	Software	<ol style="list-style-type: none"> 1. Understand the SDLC process models

		Engineering	<ol style="list-style-type: none"> 2. Able to understand the functions of requirements engineering and SRS 3. Able to design models and various designs of software development 4. Understand the concept of testing in software and importance 5. Able to understand software quality concepts
I	MCA18/1ED1/MFC	Mathematical Foundations of Computer Science	<ol style="list-style-type: none"> 1. Thorough knowledge over mathematical logic through formulas and truth tables. 2. Imply the theory of inference for statement and predicate calculus. 3. Insight into the basic concept of Set and Graph Theory 4. Acquaintance of statistical fundamentals like the types of tabulation and classification. 5. Acquiring knowledge over probability and its associated theorems
I	MCA18/1P1/DSS	Computer Laboratory- I: Data Structures	<ol style="list-style-type: none"> 1. Writing applications using Array concepts 2. Choose the data structures to convert Infix to Postfix 3. Develop real time applications using Linked List 4. Apply the sorting, search technique for an application
II	MCA18/2C/CAM	Computer Architecture and Microprocessors	<ol style="list-style-type: none"> 1. Extend adequate study over the basics of Network Hardware, Software and entities present in Physical layer. 2. Compare the functionality among various protocols associated with the Data link layer. 3. Design and Develop the algorithms to address the Routing and Congestion control. 4. Evaluate the protocols responsible for the Transport layer services. 5. Learn the technical implementations wrapped-up in the services offered by Application layer.
II	MCA18/2C/OSS	Operating Systems	<ol style="list-style-type: none"> 1. Explain the operating system components and its services 2. Demonstrate the functions of process management and issues

			<ol style="list-style-type: none"> 3. Able to synchronize and deadlock among processes 4. Apply memory management concepts in OS 5. Understand the file system recent OS
II	MCA18/2C/DAA	Design and Analysis of Algorithms	<ol style="list-style-type: none"> 1. Clear understanding of the algorithm and basic frame work of algorithm development. Learn to implement the algorithm notations. 2. Gain knowledge to understand the basic problems and problem solving techniques. 3. Learn to solve graph related problems and write algorithms. 4. Understanding the steps to involve and design algorithm for Flow Problem and Bipartite Graph problems 5. Analyse the limitations of Algorithm and Approximation Algorithms and solve practical problems.
II	MCA18/2C/PIC	Programming in C++	<ol style="list-style-type: none"> 1. Gain a clear understanding of the basic concepts of C++ along with their implementations. 2. Acquire knowledge in developing secured object oriented application using protected members 3. Acquisition of technical skills to elucidate the overloading mechanism. 4. Understanding the concept of virtual function types, generic programming features ,templates and exceptional handling functions. 5. Demonstration of I/O streams implementation
II	MCA18/2C/DMS	Database Management Systems	<ol style="list-style-type: none"> 1. Understand the fundamentals of the database and data models and SQL 2. Design a database using ER diagrams and map ER into Relations and compare the normalized relations by I

			<p>NF, II NF, III NF, IV NF and BCNF</p> <ol style="list-style-type: none"> 3. Know the different physical media for storage, different file organizations and understand how indexing and hashing used for effective storage of databases 4. Acquire the knowledge of query evaluation and optimization to monitor the performance of the DBMS 5. Illustrate various concurrency control protocols and recovery algorithms from failures. Construct a mini project using servers like Oracle or SQL Server as backend
II	MCA18/2P2/DAA	Computer Laboratory – II: Design and Analysis of Algorithms	<ol style="list-style-type: none"> 1. Develop the problem based program and implement the analysis of algorithm. 2. Learn to implement different algorithm techniques. 3. Program for the basic graph related problems
II	MCA18/2P3/DMS	Computer Laboratory -III: Database Management Systems	<ol style="list-style-type: none"> 1. Learn various fundamental and complex SQL queries 2. Develop a project in the area of their interest
II	MCA18/2P4/SPT	Computer Laboratory -IV: Summer Project	<ol style="list-style-type: none"> 1. Learn about new technologies and developments in the field of Computer Science 2. Know how to development applications as per industry standards
III	MCA18/3C/CNS	Computer Networks	<ol style="list-style-type: none"> 1. Extend adequate study over the basics of Network Hardware, Software and entities present in Physical layer. 2. Compare the functionality among various protocols associated with the Data link layer. 3. Design and Develop the algorithms to address the Routing and Congestion control. 4. Evaluate the protocols responsible for the Transport layer services. 5. Learn the technical implementations wrapped-up in the services offered by Application layer.
III	MCA18/3C/PIJ	Programming in Java	<ol style="list-style-type: none"> 1. Knowledge over fundamentals of programming.

			<ol style="list-style-type: none"> 2. Acquire the logic over OOPS concepts. 3. Implement Java Programs. 4. Make use of hierarchy of Java classes to provide a solution to a given set of requirements found in the Java API. 5. Design and implement Server side Programs.
III	MCA18/3C/STG	Software Testing	<ol style="list-style-type: none"> 1. Study over the basics of testing strategies and its applications. 2. Move on with the flow in which the testing strategies to be applied to the product is being developed. 3. Learn the testing strategies to be adapted for different platforms. 4. Evaluate the testing tools best suited for automating the testing process. 5. Assess the performance levels for ensuring the Quality Management.
III	MCA18/3E1/SAD	Elective I: <ul style="list-style-type: none"> • System Analysis and Design •  	<ol style="list-style-type: none"> 1. Develop methodologies for System Design and Project Development. 2. Collect requirements to design and develop Applications. 3. Exhibit the flow and the operations associated with the system as suitable diagram. 4. Study the object oriented principles to avail the bottom-up architecture and Reusability features. 5. Implement the design and development of the application and check for prior implementation activities.
	MCA18/3E1/SPM	<ul style="list-style-type: none"> • Software Project Management 	<ol style="list-style-type: none"> 1. Learn basic project management concept. Gain knowledge about quality standards. 2. Learn software costing models. Know about the tools regarding process models. 3. Gain knowledge about software project planning, scheduling and estimation. 4. Gain knowledge about risk management process. Know the importance of cost scheduling and monitoring. 5. Know about the organizational structure and human resource.
	MCA18/3E1/CDN	<ul style="list-style-type: none"> • Compiler 	<ol style="list-style-type: none"> 1. Demonstrate a working understanding

		Design	<p>of the process of semantic analysis through the construction of semantic records based on parse trees</p> <ol style="list-style-type: none"> 2. The construction of symbol tables, 3. The organization of run time memory and the writing of a semantic analyzer for a compiler. 4. Design, analyze, implement and test a working compiler for a small language 5. Develop a compiler with all the phases
III	MCA18/3ED2/MCE	M-Commerce	<ol style="list-style-type: none"> 1. Learn to know about online payments. Gain a clear understanding about online business. 2. Gain to understand the Mobile commerce business models. Learn to know the techniques involved in M-commerce. 3. Examine about the communication networks. Understand the Services. 4. Understanding the steps to involve in small business and design business models. 5. Know real world online business. Gain knowledge about asset Maintenance/ Management.
III	MCA18/3P5/PIJ	Computer Laboratory – V: Programming in Java	<ol style="list-style-type: none"> 1. Writing Java program using OOPS concepts 2. Developing packages, event handlers and web programming
III	MCA18/3P6/STG	Computer Laboratory – VI: Software Testing	<ol style="list-style-type: none"> 1. Writing test suite containing test cases to check web page contents using selenium IDE. 2. Developing test case to ensure the functionality of Program entities using selenium IDE.
IV	MCA18/4C/DWM	Data Warehousing and Mining	<ol style="list-style-type: none"> 1. Ability to apply acquired knowledge in understanding data, nature of data and select suitable methods for data analysis and various data mining principles 2. Analyse the importance of data preprocessing, Design data warehouse with dimensional modeling and apply OLAP operations. 3. Design and deploy appropriate classification techniques for high

			<p>dimensional data for better organization of the data</p> <ol style="list-style-type: none"> 4. Compare and evaluate different data mining techniques like classification, prediction, clustering and association rule mining 5. Develop skill in selecting the appropriate data mining algorithm for solving practical problems.
IV	MCA18/4C/VNP	Visual .Net Programming	<ol style="list-style-type: none"> 1. Compare and contrast the features of C# over Java and vice versa. 2. Explain how C# provides support for OOPS concepts and event handling. 3. Develop the web based applications using ADO.NET in C# 4. Apply XML in the .NET environment to create Web Service-based applications 5. Summarize the basics of Asynchronous programming
IV	MCA18/4C/CNS	Cryptography and Network Security	<ol style="list-style-type: none"> 1. Impart knowledge on Encryption techniques, Design Principles and Modes of Operation 2. Design a security solution for a given application 3. Devise the Key Management techniques 4. Create an understanding of Authentication functions the manner in which Message Authentication Codes and Hash Functions works. 5. Examine the issues and structure of Authentication Service and Electronic Mail Security
IV	MCA18/4C/PPG	Python Programming	<ol style="list-style-type: none"> 1. Learn basics of python. Understanding the basic python program. 2. Solve the new operations of python. understanding and implement the basic problems. 3. Use conditional and unconditional statements in python. Learn to solve function related problems. 4. Understanding the Errors and Exceptions of python program. Gain knowledge about modules and packages.

			<ol style="list-style-type: none"> 5. Know the file handling in python. Absorb the OOPS concepts of python.
IV	MCA18/4E2/AFM	Elective II: Accounting and Financial Management	<ol style="list-style-type: none"> 1. Acquire the conceptual knowledge of accounting principles 2. Understand the concepts and standards underlying the analysis and interpreting the accounts. 3. Have the comprehensive knowledge about the break even analysis and marginal costing. 4. Gain expertise in Budget and forecasting. 5. Interpret the elements related to project appraisal and capital investment decision making
	MCA18/4E2/STS	Statistical Methods	<ol style="list-style-type: none"> 1. Extend adequate study over the measurement of scale and graphs and diagrams. 2. Understand the functionality behind the measures of central tendency. 3. Gain the insight into all the measures of dispersion. 4. Interpret the conceptual knowledge of moments and its classification. 5. Familiarize the types of correlation and co-efficient for grouped data.
	MCA18/4E2/RMT	Resource Management Techniques	<ol style="list-style-type: none"> 1. Construct a real world problem into a mathematical problem. 2. Identify the appropriate model to solve the problem. 3. Explore the alternative models and justify on the selected model for representation 4. Analyse and provide an optimal solution 5. Construct the network and analyse the resources in network scheduling
IV	MCA18/4P7/VNP	Computer Laboratory – VII: Visual .Net Programming	<ol style="list-style-type: none"> 1. Identification of building blocks of .NET and design C# applications using visual studio 2. Development of C# advanced programming techniques and build various .NET assemblies
IV	MCA18/4P8/PPG	Computer Laboratory – VIII: Python	<ol style="list-style-type: none"> 1. Working with python Libraries 2. Installing new packages and working with oops

		Programming	3. Working with files and graphics.
IV	MCA18/4S4/TSR	Technical Seminar and Report Writing	<ol style="list-style-type: none"> 1. Obtain a thorough knowledge about a particular domain. 2. Initiate the research process. 3. Expertise in the field. 4. Able to recognize the issues of any particular field.
V	MCA18/5C/AJP	Advanced Java Programming	<ol style="list-style-type: none"> 1. Know the importance of Enterprise Applications, role of JDBC 2. Understand ,implement the server side and client side components 3. Understand the Java mail, JMS components 4. Learn and apply EJB in Enterprise applications 5. Understand Frameworks in the real time application development
V	MCA18/5C/MLG	Machine Learning	<ol style="list-style-type: none"> 1. Learn machine learning basics and Models of ML 2. Gain knowledge about feature engineering and learn about statistical tool. 3. Gain knowledge about supervised learning in ML 4. Gain knowledge about unsupervised learning in ML 5. Learn Decision tree algorithms and some real world problem implementation.
V	MCA18/5E3/CCG	Elective III: Cloud Computing	<ol style="list-style-type: none"> 1. Demonstrate the different taxonomy of parallel and distributed computing 2. Articulate the main concepts, key technologies, strengths and limitations of Virtualization and Cloud computing 3. Compare and contrast the delivery and deployment models of cloud computing 4. Analyze the core issues of cloud computing such as energy efficiency, security, privacy and interoperability 5. Recognize the cloud file systems and their applications in industry. 6. Identify problems, explain, analyze, and evaluate various cloud computing solutions
	MCA18/5E3/MCG	Mobile Computing	<ol style="list-style-type: none"> 1. Study over the basics of telecommunication systems.

V			<ol style="list-style-type: none"> 2. Compose the functionality and operational architecture of GSM, DECT and TETRA. 3. Examine the variants of Wireless LAN technologies and learn about Satellite systems. 4. Develop the insight into the Mobile Network Layer and the Routing algorithms. 5. Relate the coordination among the types of TCP and Discuss the WAP and WML script
	MCA18/5E3/AIE	Artificial Intelligence	<ol style="list-style-type: none"> 1. Analyse the modern view of AI as the study of agents that receive precepts from the environment and perform actions 2. Demonstrate awareness of informed search and exploration methods 3. Demonstrate about AI techniques for knowledge representation, planning and uncertainty management 4. Develop knowledge of decision making and learning methods 5. Implement the use of AI to solve English Communication problems
	MCA18/5E4/DIP	Elective IV: Digital Image Processing	<ol style="list-style-type: none"> 1. Discuss the fundamentals of Digital image processing including the simple image formation and relationship between pixels 2. Analyze the different types of Image transform techniques 3. Outline the different types of Image enhancement techniques in spatial and frequency domain 4. Understand the different types of image degradation like linear image restoration techniques and nonlinear image restoration techniques 5. Apply the image compression like lossy and loss less image compression techniques and also understand the need of image segmentation
	MCA18/5E4/BDA	Big Data Analytics	<ol style="list-style-type: none"> 1. Demonstrate the challenge with Big Data and various modern Analytics

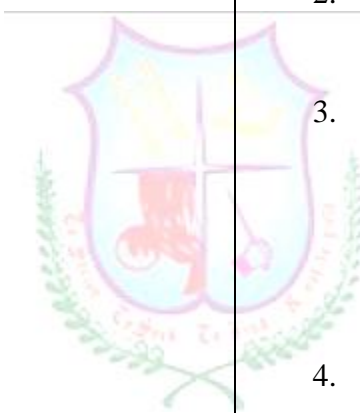
			<p>Tools</p> <ol style="list-style-type: none"> 2. Interpret Big Data as stream, how to filter & analyze the stream 3. Understand the Hadoop Architecture, how to run jobs, tasks 4. How to develop map reduce applications. 5. Experiment with Hadoop Architecture, its Applications
	MCA18/5E4/IOT	Internet of Things	<ol style="list-style-type: none"> 1. Gain a clear understanding of the IOT and basic frame work of IOT and devices. Learn to know the IOT enabling technologies. 2. Gain a clear understanding of the frame work of the various devices. Learn to connect devices with different mode. 3. Gain to know the various services related to mobile and IOT . Understanding the business process in IOT. 4. Understanding the various models of IOT and learn to deploy IOT models. 5. Learn real world problems and make design constrains. Understand the limitations of IOT.
V	MCA18/5ED3/OBR	Organizational Behavior	<ol style="list-style-type: none"> 1. Study over the basics of organizational behavior. 2. Build the personality grooming and learning process and its types. 3. Coordinate with the group to establish the proper communication. 4. Acquire the adequate amount of leadership skills. 5. Grasp the knowledge over the dynamics organizational climate.
V	MCA18/5P10/AJP	Computer Laboratory – X: Advanced Java Programming	<ol style="list-style-type: none"> 1. Writing JDBC connectivity to post and retrieve through a web application. 2. Developing the servlet, JSP using IDE. 3. Develop real world enterprise modules 4. Send a email from an application using Java Mail
V	MCA18/5P11/MLG	Computer Laboratory – XI: Machine Learning	<ol style="list-style-type: none"> 1. Working with machine learning tools 2. Implement basic machine learning concepts

M.COM BANKING & INSURANCE MANAGEMENT

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	19SP18/1C/IMI	Insurance Management In India	<ol style="list-style-type: none"> 1. Analyse the relevance of Insurance and organization structure of insurance 2. Outline the insurance Intermediaries. 3. Explain the importance of fund management in insurance. 4. Compile the strategy of risk management in insurance. 5. Discuss the Grievance Redressal System in Insurance Sector
I	19SP18/1C/BKG	Banking And Financial System	<ol style="list-style-type: none"> 1. Compile knowledge on components of Indian Financial System. 2. Outline the law and provisions relating to banking companies. 3. Discuss on Types of Bank Customers, types of deposit accounts and relationship between bank and customer. 4. Explain the Negotiable instrument and Analyze the role and duties of paying and collecting banker. 5. Explain the functioning of regulatory bodies like SEBI and RBI.
I	19SP18/1C/ATG	Accounting For Decision Making	<ol style="list-style-type: none"> 1. Demonstrate skills on using different accounting tools for decision making. 2. Demonstrate mastery of capital budgeting methods 3. Prepare the different types of budgets 4. Evaluate a company's management of working capital. 5. Identify and compute different types of leverages.
I	19SP18/1C/LFI	Legal Framework Of Insurance	<ol style="list-style-type: none"> 1. Analyse the working of Insurance contract 2. Identify the basic principles governing insurance policy 3. Explain the various components of an insurance policy 4. Analyse the provisions of statutes regulating insurance business.

			5. Outline regarding recent developments in the regulatory framework.
I	19SP18/1E1/PMG (OR)	Project management (OR)	<ol style="list-style-type: none"> 1. Explain the concept 2. Demonstrate the Process of identifying project ideas 3. Analyze the demand, market and technical aspect for project ideas 4. Planning the execution of a project 5. Create and design feasible project ideas
	19SP18/1E1/QUT	Quantitative Techniques	<ol style="list-style-type: none"> 1. Discuss the meaning and role of quantitative techniques in decision making 2. Design and solve problems through linear programming 3. Formulate network diagram using PERT and CPM 4. Explain the context of decision tree and the application of the same in decision making 5. Compute various statistical measures and use of SPSS
II	19SP18/2C/PPI	Principles And Practice Of Life Insurance	<ol style="list-style-type: none"> 1. Outline the principles of life insurance policy 2. Demonstrate the various facets of insurance policy 3. Assess the various riders offered to the policy holders. 4. Analyse the various life insurance products available in the market. 5. Evaluate the various insurance products and their suitability to different criteria of people.
II	19SP18/2C/TEC	Technology In Banks	<ol style="list-style-type: none"> 1. Identify the components of Core Banking System and other essentials of bank computerisation. 2. Compare the different electronic payment systems. 3. Identify and use various fund transfer systems. 4. Explain the role and impact of upgradation of technology. 5. Examine the legal framework of technology in banks.
II	19SP18/2C/GPR	General Insurance And Practice	<ol style="list-style-type: none"> 1. Compile the concept of insurance and types of insurance. 2. Discuss the different types of fire insurance.

			<ol style="list-style-type: none"> 3. Explain the origin of marine insurance and its types. 4. Outline of health insurance, Fidelity insurance and other Insurance. 5. Analyse the types of burglary insurance and motor insurance.
II	19SP18/2C/FET	Forex Management	<ol style="list-style-type: none"> 1. Discuss the operations in Foreign Exchange Market. 2. Identify the documents used in the international transactions and by institutions which help in international trade. 3. Explain the mechanism of international settlements. 4. Outline the EXIM policies and foreign exchange regulations. Discuss the Foreign Exchange Management Act.
II	19SP18/2E2/SAP (OR)	Security Analysis And Portfolio Management (Or)	<ol style="list-style-type: none"> 1. Explain a theoretical and practical back ground in the field of investments. 2. Apply the designing and managing the bond as well as equity portfolios, valuing equity and debt instruments. 3. Evaluate the portfolio performance. 4. Identify different investment alternatives in the market and how securities are traded in the market. 5. Analyze insight about the relationship of the risk and return and how risk should be measured to bring about a return according to the expectations of the investors and also to familiarize the fundamental and technical analysis of the diverse investment avenues.
	19SP18/2E2/FFT	Financing Of Foreign Trade	<ol style="list-style-type: none"> 1. Analyze risk management by banks as well as exporters and importers. 2. Identify the instruments available to facilitate trade and the associated rules and terms. 3. Demonstrate understanding of the foundations of

			<p>international trade and finance (transaction facilitation, risk management, financing, information sharing).</p> <ol style="list-style-type: none"> Evaluate the purchaser – related and the country – related risks (eg: political and economic risks) and find possible ways to minimize or avoid them. Evaluate the foreign – exchange risks.
III	19SP18/3C/ FCA	Foundation Of Casualty Actuarial Science	 <ol style="list-style-type: none"> Apply the core areas of actuarial practice and relate to those areas actuarial principles, theories and models. Identify the factors and issues to be taken into when doing a professional job in actuary. Explain how the actuarial control cycle can be applied in a variety of practical commercial situations, including its use as a risk management control cycle. Evaluate how actuarial can contribute to meeting the business needs of their clients and other stakeholders. Apply the IRDA Procedure for preparation of Actuarial Report.
III	19SP18/3C/MOB	Marketing Of Banking And Insurance Services	<ol style="list-style-type: none"> Identify the strategies adopted by the banking and insurance sector. Explain the market environment and competitor strategies. Demonstrate the CRM practices in the services sector. Identify the recent developments in the services sector. Explain the factors influencing buyer behaviour.
III	19SP18/3C/LRB	Legal And Regulatory Aspects Of Banking	<ol style="list-style-type: none"> Outline the legal and regulatory framework governing banking business

			<ol style="list-style-type: none"> 2. Explain the securitisation and reconstruction of bank assets 3. Assess the rights of customers and the grievance redressal mechanism available and the procedure adopted. 4. Analyse the powers and functions of consumer dispute redressal agencies. 5. Identify the objective and effectiveness of Money Laundering Act and IT Act in the wake of bank scams.
III	19SP18/3E3/DTX (OR)	Direct Tax Management (Or)	<ol style="list-style-type: none"> 1. Explain the fundamentals of Income Tax and the scope of IT calculation 2. Compare Tax Planning, Tax Evasion and Tax Avoidance as well as plan self filing of Returns 3. Computation of income under the five heads of income such as Salaries House Property, Capital Gains, Business or Profession and Income from other sources 4. Demonstrate the concept of GST ,its Computation and application on the different sectors of the economy 5. Dicuss about the Indian Taxation System
	19SP18/3E3/AUD	Auditing	<ol style="list-style-type: none"> 1. Understand the scope of auditing. 2. Explain the audit of financial statements of a company 3. Analyze various cash transactions and differentiate between internal control and internal audit 4. Discuss the concept of bank audit and the preparation of audit reports 5. Outline the role, responsibilities and removal of an auditor
III	19SP18/3E4/HUM (OR)	Human Resource Management (Or)	<ol style="list-style-type: none"> 1. Discuss the key concepts and frameworks of human resource management (HRM) 2. Explain the role of HRM towards Manpower planning 3. Discuss different methods of appraisal and Job evaluation techniques 4. Outline ethical issues and

			<p>employee rights to information, privacy, safety and health in work place.</p> <p>5. Analyse issues and challenges faced by women in work place, their role in HR and success stories.</p>
	19SP18/3E4/SPM	Strategic Management And Policy Making	<ol style="list-style-type: none"> 1. Explain the concept and significance of Strategic Management and Decision making 2. Formulate successful Business Strategies, Process and tools 3. Utilise various approaches to analyse the environment 4. Explain the types of Strategies for Strategic Business Units 5. Discuss on the various issues on the Strategy implementation
IV	19SP18/4C/MGL	Management Of Lending	<ol style="list-style-type: none"> 1. Discuss the principles of lending and different forms of lending. 2. Use knowledge on various lending support for working capital requirements. 3. Evaluate the loan proposals properly through feasibility study. 4. Outline the procedure and precautions adopted by banker in dealing with different types of securities. 5. Analyse NPA's prudently.
IV	19SP18/4C/RMB	Risk Management In Banks	<ol style="list-style-type: none"> 1. Explain the concept and significance of Risk Management in Banks 2. Identification measurement and management techniques of various risks of Banking industry 3. Apply the various tools to manage risks in Banks using Basel Norms 4. Explain the concept and importance of Integrated Risk Management 5. Discuss on the emerging areas of Risk Management in Banks
IV	19SP18/4C/ACT	Advanced Cost Accounting	<ol style="list-style-type: none"> 1. Assess the need and methods of reconciliation of cost and financial accounts 2. Identify the meaning of contract costing and compute cost and profit of contracts 3. Apply process costing to calculate product cost

			<ol style="list-style-type: none"> Analyse and provide recommendations for decision making using marginal costing techniques. Identify the specifics of different service costing methods
IV	19SP18/4C/FSS	Financial Services Management	<ol style="list-style-type: none"> Discuss the role of financial services in the financial system. Explain the concept of various financial services available in the market Analyze the performance of financial services in the context market trends. Identify the differences between different types of financial services. Summarise the impact of financial services on the economic development.
IV	19SP18/4E5/FNM (OR)	Financial Management (Or)	<ol style="list-style-type: none"> Discuss the concept of financial management Discuss the concept and significance of cost of capital Assess long term financing decisions Analyze and plan working capital and inventory requirement for an organization Explain the significance of Capital Budgeting techniques and apply the same in making long term investment plans
	19SP18/4E5/PJT	Project	<ol style="list-style-type: none"> Identify the areas of research in finance, HR, marketing Study in depth of research area Plan research strategy Analyse research outcomes Summarise the findings of the research

MA JOURNALISM AND COMMUNICATION

SEM	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
I	20SP18/1C/ICN	CORE1: Introduction To Communication	<ol style="list-style-type: none"> 1. Outline the nature, process, functions, types and barriers of communication. 2. Explain about the different communication theories 3. Discuss the societal functions of mass media and its effects, as well as explain the latest technologies and new media. 4. Critique mass media and society using cultural studies approach. 5. Create a plan for social development using communication.
I	20SP18/1C/RE1	CORE 2:News Reporting And Editing I	<ol style="list-style-type: none"> 1. Apply News gathering techniques and cultivation of News Sources 2. Examine the techniques for In-depth story writing 3. Appraise the methods of News Editing 4. Demonstrate Proof reading skills 5. Analyze current affairs topics
I	20SP18 /1C/IHP	CORE 3:Indian Society, History And Politics	<ol style="list-style-type: none"> 1. Appraise the Indian Social Institutions, Power stratification, fine arts and status of Women in India 2. Analyze about the European traders in India and rise of national movements. 3. Examine about the Agricultural Production, Trade Policies and Politics and Impact of Cinema in India. 4. Appraise knowledge about the Tamil Society during Kalapirars and Pallavas. 5. Infer about the Tamil Sidhars and Impact of Christian Missionaries on Society
I	20SP18/ 1C/NPJ	CORE 4:Newspaper Journalism (Practical)	<ol style="list-style-type: none"> 1. Create news stories and features for different beats. 2. Explain the nature and structure of news stories 3. Demonstrate news stories writing skills on neighborhood. 4. Discuss about journalistic techniques based on assigned beat. 5. Plan and bring out a tabloid newspaper.
I	20SP18/1E1/PJM OR	ELECTIVE: Photo Journalism	<ol style="list-style-type: none"> 1. Infer the basic and ethics of photography

		(Practical) OR	<ol style="list-style-type: none"> 2. Identify different genres 3. Develop photo story 4. Discover techniques of visual story telling 5. Formulate professional techniques to match the industry standard
	20SP18/1E1/FWG	Feature Writing	<ol style="list-style-type: none"> 1. Apply the techniques of story organisation, narrative writing and argumentation 2. Illustrate different types of Feature Writing techniques 3. Compare News Reports & Stories for various medium 4. Apply anatomy of a news story and the news writing techniques for various media. 5. Analyze interview techniques and legal considerations
II	20SP18/ 2C/MLE	Core 5 : Media Laws And Ethics	<ol style="list-style-type: none"> 1. Outline the evolution of Indian media 2. Explain the media laws, copyright and intellectual rights. 3. Discuss the ethical problems and privacy issues in mass media. 4. Analyze the media ownership and private treaties patterns in India. 5. Discuss the role of press council of India and its guidelines.
II	20SP18/ 2C/RE2	Core 6 : News Reporting And Editing II	<ol style="list-style-type: none"> 1. Apply the Principles and practices of News Reporting in various fields like Sports, Health, Business and Finance etc 2. Analyze ethical challenges in news reporting 3. Appraise rewriting techniques and types of editorial. 4. Examine layouts, design elements and editing techniques 5. Analyze current affairs topics.
II	20SP18 /2C/MJM	Core 7 : Magazine Journalism (Practical)	<ol style="list-style-type: none"> 1. Illustrating creative ideas for magazine layout 2. Discover they way of storytelling for various genres 3. Create features on various genres 4. Composing layout design 5. Design a magazine with their own features/articles

II	20SP18/2C/RJM	Core 8 : Radio Journalism (Practical)	<ol style="list-style-type: none"> 1. Examine the history of radio journalism and interpret the qualities of Radio journalist and the target audiences 2. Label the cues for news assembly and news reading 3. Illustrate radio news on location 4. Assess the essentials of day part 5. Apply and develop the trends in radio journalism
II	20SP18/ 2E2/ICC OR	Elective 2 : Intercultural Communication Or	<ol style="list-style-type: none"> 1. Explain the need to study intercultural communication. 2. Outline the relations between communication, culture and power. 3. Discuss the relationship between society, identities, culture and communication 4. Analyze the relationships between language, identity and communication.. 5. Critique society, politics, language and policies among cultures.
	20SP18/2E2/DCN	Development Communication	<ol style="list-style-type: none"> 1. Interpret the need of communication and communication models 2. Apply the concept of Diffusion of Innovation on the empowerment of third world countries 3. Evaluate the support to agriculture and rural development through community radio 4. Compare the divide between Developed and Developing societies and assess the dominant paradigm of development 5. Design ICT for sustainable development of third world countries
II	20SP18/2E/SMC	Non Major Elective 1 : Social Media Communication	<ol style="list-style-type: none"> 1. Outline the basics of journalism and its role in society 2. Explain the history of media technologies and develop self-directed projects that synthesize creative, technical and critical approaches 3. Identify the role of online journalist and analyse critically the changes that the internet has introduced to journalism 4. Build on information gathering with advanced web tools 5. Formulate what social media is, the various channels through which it

			operates and its role in society
III	20SP18/3C/CRM	Core 9 : Communication Research Methods	<ol style="list-style-type: none"> 1. Distinguish research types and ascertain the elements of research 2. Explain the difference between qualitative and quantitative research methods and match sampling techniques 3. Apply case study and content analysis technique based on the research proposal 4. Evaluate and appreciate the research methodology followed in various mass media and its effects 5. Prepare a research thesis
III	20SP18/3C/TJM	Core 10 : Television Journalism (Practical)	<ol style="list-style-type: none"> 1. Recalling basics of television journalism 2. Compare and contrast theories with techniques 3. Preparing various scripts for television programmes 4. Planning and developing the structure of a program 5. Produce a television programme
III	20SP18/3C/AVE	Core 11 : Audio Video Editing (Practical)	<ol style="list-style-type: none"> 1. State and define the fundamentals of video editing 2. Describe the narratives and the various editing techniques 3. Judge the sound design in a AV 4. Evaluate the principles of audio and video editing with the softwares 5. Conceive, compose and develop an AV
III	20SP18/3E3/PRS OR	Elective 3 : Public Relations (Practical) /	<ol style="list-style-type: none"> 1. Outline the evolution of Public relations and propaganda, as well as explain the applications 2. Explain about Public relations officer's roles and responsibilities, code of ethics and critical issues. 3. Identify the different types of media formats 4. Analyze the management methods of corporate and Public relations 5. Create, implement and evaluate a Public relations campaign
	20SP18/3E3/SJM	Sports Journalism	<ol style="list-style-type: none"> 1. Examine what is sports journalism and the media's influence on sports. 2. Appraise the relationship between the

			<p>Sportsperson and the Agent</p> <ol style="list-style-type: none"> 3. Apply the Inverted Pyramid and Diamond Structure and explain the different media. 4. Examine Sports Public Relations and apply the various camera techniques for Sports events. 5. Apply anchoring and Interview techniques for Sports
III	ELECTIVE-20SP18/3E4/ADG OR	Elective 4 : Advertising/	<ol style="list-style-type: none"> 1. Demonstrate an understanding of the overall role advertising plays in the media & business world 2. Identify and understand the various advertising media 3. Demonstrate an understanding of how an advertising agency operates 4. Demonstrate an understanding of advertising strategies and budgets 5. Demonstrate an understanding of what will be required to achieve success, in terms of skills and attitude.
	20SP18/3E4/EJM	Environmental Journalism	<ol style="list-style-type: none"> 1. Outline the origins and characteristics of Environmental Activism and movements in India and Tamil Nadu 2. Examine the coverage of environmental news 3. Discuss the major environmental movements across the world and India. 4. Appraise the modes and techniques of Environmental Journalism and explain the role of science and development. 5. Apply the techniques in Environmental Journalism.
III	20SP18/3E/BJM	Non Major Elective 2 : Basic Journalism	<ol style="list-style-type: none"> 1. Discuss the characteristics, structure, types and current trends in feature writing. 2. Outline the nature, scope, avenues and opportunities of freelance journalism. 3. Prepare illustrations for write-ups, as well as write reviews and criticisms. 4. Explain the different types of reviews and differentiate between reviews and criticisms 5. Apply the techniques of writing columns.
III	20SP18/3S/CSS	Softskills 3 :	<ol style="list-style-type: none"> 1. Apply basics of communication

		Corporate Soft Skills	<ol style="list-style-type: none"> 2. Categorize different types of communication 3. Identify different communication skills 4. Relate non verbal communication 5. Develop team building skills
IV	20SP18/4C/FMS	Core 12 : Film Studies (Practical)	<ol style="list-style-type: none"> 1. Review world cinema and contemporary films 2. Identify production process in film 3. Relate Mis-en-scene in contemporary film 4. Practice the techniques of cinematography and editing 5. Relate aesthetics of various films
IV	20SP18/4E5/OJM OR	Elective 5 : Online Journalism (Practical) /	<ol style="list-style-type: none"> 1. Identify the aspects of new media and their advantages 2. Compute various features in various new media platforms 3. Practice the role of online journalist 4. Develop and design write ups for digital medium 5. Predict the future of online journalism
	20SP18/4E5/PAC	Performing Arts And Communication (Practical)	<ol style="list-style-type: none"> 1. Outline the performing arts and history in Tamil Nadu 2. List the characteristics and genres of theatre arts in India 3. Experiment with empowerment and feminism on performing arts 4. Discover the need and scope of various folk forms 5. Choose and propose modern trends such as digital performance and virtual practices
IV	20SP18/4S/PSG	Soft Skill 4 : Public Speaking	<ol style="list-style-type: none"> 1. Infer the basic concepts of human communication 2. Recalling the structure of speech 3. Practice the delivery of speech 4. Using human body for communicating message 5. Match with audience needs