NIZAM COLLEGE

Autonomous

Re-accredited by NAAC with B++

A Constituent College of Osmania University

COURSE OUTCOMES

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COURSE OUTCOMES

Department of Arabic

CO1: The Arabic course designed to help the students in getting job in various fields as we know the Arabic is the 5th most frequently spoken native diction in the world. It is majorly used by Muslims worldwide, with over 200 million people in various Arab countries, and well recognized in different regions of Africa as well.

CO2: It was included as the 6th official form of speech in the United Nations because of its widespread usage all over the globe. Besides, it is also the representative tongue in the Arab League, the Organization of Islamic Conference (OIC), and the African Union.

CO3: Due to high emergence of Western attention towards Middle East, whether it is for resolving peace issues between some countries or the wild spread of Multinational companies in such states, the basic understanding of Arabic is the very first thing to do so as to interact with locals productively.

CO4: As, the West is facing acute scarcity of people who are proficient in Arabic, be it in Journalism, Foreign Affairs, and other businesses etc. there is a great opportunity for people to learn this lingo and make their careers count in various fields.

CO5: Many Multinational organizations have recently moved to Middle East, like in United Arab Emirates and Saudi Arabia. They regularly search for foreign competent workers who could contribute to their business operations.

CO6: There is also a dearth of professionals among the locals of such countries, which is why they look for people from other countries. So, it is opens great prospects for those interested in moving to Arab world for living to speak, write, read and understand Arabic language.

Course: MBA (Regular) Year: I/Semester: I

Management and Organizational Behaviour

CO1: By the end of the course, the students would have a comprehensive understanding of managing the organizational functions in various organizational settings through gaining insights into individual, inter-personal and group situations

Accounting for Management

CO 1: Journal, Ledger, Trial Balance and Final Accounts

CO2: Analyze performance of companies using Ratio Analysis

CO3: Analyze Cash Flow position of companies

CO4. Make calculation relating to Cost Volume Profit Analysis

Marketing Management

CO 1: Students can equip with marketing and selling tools.

CO2: Students can learn about the competition levels in the market.

CO3: Buyer behavior and perceptions are key of any business; that can be thoroughly learnt.

CO4: Various market position skills can be obtained for competitive advantage.

CO5: Group Dynamics and Channel Dynamics involved in marketing can be assessed.

CO6: Better control of key resources and optimum utilization of resources can be attained

Statistics for Management

CO1: Basic Statistics helps in descriptive analytics.

CO2: Knowledge of Probability and distributions are playing an important role across the various areas of management like finance, Marketing, HRM, supply chains etc.

CO3: Hypothesis testing is useful in estimation for analysis and decision making.

CO4: Correlation, regression techniques are an integral part of planning and controlling.

Economics for Managers

CO1: Students can learn micro factors of Economic behavior of a consumer.

CO2: Would be Managers needs market dynamics and the same is imparted.

CO3: Students can assess opportunities and threats of business.

CO4: Students can better understand nature of the products and demand conditions.

CO5: It is also provided through this paper the decision-making tools and investment avenues.

Financial Markets and Services

CO1. To learn about the participants, products, players in primary and secondary markets

CO2. Identify the new financial innovations taking place in India.

CO3. To identify Merchant Bankers in India and know about their activities

CO4. To learn about the players in the leasing and hire purchase business in India.

CO5. To learn about the insurance companies and the products offered by them.

CO6. To trace the regulation in financial markets.

Managerial Communication

CO1: To acquire the requisite knowledge about the fundamentals of communication skills.

CO2: To study how to write business letters, reports and other business correspondence.

CO3: To learn various aspects of oral communications viz presentation skills, group discussions and negotiation.

CO4: To acquire knowledge about various types of interviews.

CO5: To learn media management and social etiquette in order to handle day to day managerial responsibilities.

Year: I /Semester: II

Human Resource Management

CO1. Transform Human beings into Human Resources

CO2. Build Global Level HR Managers

CO3. Create Agile Workforce

CO4. Innovate Winning Organizations

Financial Management

CO1. Apply project appraisal methods to cash flows.

CO2. To understand the corporate practices of dividend payment.

CO3. To learn about corporate events like mergers

CO4. To learn about inventory management of manufacturing companies

Operations Research

CO1. Helps in formulating real life situations in organizations in Quantitative form.

CO2. Helps in formulating strategies for optimal use of various resources within the organizations.

CO3. Application of optimization tools for decision-making

Entrepreneurship and Development

CO1. A student learns the cues and motives of Entrepreneurship

CO2. Students can learn more about types of Enterprises and growth

CO3. Knowledge of entrepreneurship prepares the entrepreneurial bent of mind

CO4. Problems and perspectives of the entrepreneurship can be understood

CO5. It is also possible to students understand and comprehend on venture capital funds

Business Research Methods

CO1. To gain understanding of various kinds of research design

CO2. To enable learners to be able to formulate the research problem

CO3. To acquire basic knowledge on qualitative and quantitative research

CO4. To have knowledge on descriptive and inferential data tools

CO5. To be able to write and develop independent and critical analysis for report writing

Business Law and Ethics

CO1: By the end of the course, the students would have a comprehensive understanding of the legal and ethical considerations in business organizations through gaining knowledge of provincial and international outlook.

Innovation Management

CO1. Helps in formulating R&D policy and strategy for an organization.

CO2. Helps in making budget allocations for R & D projects in organization.

CO3. Helps in managing Innovation in Organization.

Customer Relationship Management

CO1. Students can work in CRM tools to make positive contribution to the organization.

CO2. Students can take professional responsibilities and make informed judgments in the organizations towards their target market.

CO3. Students can get streamline work processes and improve CRM within the organization.

Seminar Presentation

CO1. Presentation skills: Student is expected to present with clear aims and out comes

CO2. Argumentative and critical thinking Critical thinking: It is closely related to how student is able to relate critical thinking, thought process and reasoning.

CO3. Inter Disciplinary Approach: Relating knowledge more than one branch

CO4. Presentation of the text: The sequence of text presentation in order to provide logical clarity

Year: II / Semester: III

Operations Management

CO1. Understand Importance /Planning organizing and controlling aspects of Operations Management.

CO2. Re-enforce the concepts of production Management.

CO3. Help students understand different operational issues under manufacture and services

E-Business

CO1. Students can work in latest trends in business field to make positive contribution to the organization.

CO2. Students can take professional responsibilities and make informed judgments in the organizations for E Business.

CO3. Students can get streamline work processes and improve communication within the organization to meet their objectives by involving with E Business Models.

Total Quality Management

CO1. Understand the basic terminologies and metrics that are used to govern quality management

CO2. Get a better perspective on quality standards like ISO

CO3. Be able to identify the various metrics that govern quality

CO4. Elucidate the role and importance of six sigma as a quality measurement tool

CO5. Identify the various means and techniques for establishing quality in services sector

Global Business Strategies

CO1. The students develop higher level skills in global business

CO2. The student outlook changes towards global business environment

CO3. They are exposed to practical problems of global marketing

CO4. The students attain the knowledge about international industry and Markets

Investment Management

CO1. Differentiate various avenues of investment on the basis of risk and return

CO2. Gain basic knowledge of analyzing stocks

CO3. Make valuation of equity, debt and portfolio instruments

CO4. Gain an understanding of mutual funds, their performance evaluation and regulation.

International Finance

CO1. Differentiate between fixed and floating rates

CO2. Make calculations relating to foreign exchange rates based on parity theories

CO3. Understand the financial instruments in international markets

CO4. Make decisions relating to capital budgeting decisions in an international environment

Marketing Engineering

CO1. Understand the relevance of modeling in marketing for logical judgment

CO2. Appreciate the business and economic lifetime value of marketing engineering

CO3. Be well versed with the various models, both qualitative and quantitative in marketing engineering

CO4. Understand the relevance of using modeling in marketing as a decision-making tool

CO5. Learn the importance of marketing engineering as a strategic marketing analysis tool.

Advertising and Retail Management

CO1. Understand the importance of advertising in the marketing mix

CO2. Establish the importance of creativity in an ad campaign

CO3. Determine the comparative importance of organized retailing sector vis-a- vis unorganized sector

CO4. Compare the functions and performance of organized retail sector to others

CO5. Determine the role of other functional areas of marketing as key drivers to the retail sector

Industrial Relations and Labour Laws

CO1. Comprehensive understanding of industrial relations problems, labour laws.

CO2. Framework for analysis of Problems.

CO3. To generate alternate decision making of such problems and would be able.

Organisational Development

CO1. The students would gain the conceptual clarity of OD and its process.

CO2. The students would be familiarized with the major OD interventions.

Database Management Systems

CO1. Students can apply the basic concepts of Database Systems and Applications

CO2. Design a commercial relational database system (Oracle, MySQL) by writing SQL using the system.

CO 3. Students can get to facilitate students in Database design and also to familiarize issues of concurrency control and transaction management in DBMS

Business Analytics

CO1. Students can use data as tool for business analysis

CO2. The basic statistics provides a road map to learners

CO3. Micro metrics makes the students to identify data gaps

CO4. The business models may help in better decision making

Year: II /Semester: IV

Business Policy and Strategy

CO1. The students develop higher level skills in strategic business areas

CO2. The student outlook changes towards business environment

CO3. They are exposed to practical problems of strategy formulation

CO4. The students attain the knowledge about Industry and Market

Business Intelligence

CO1. Emphasizes the Practical need for good decision support system as Bi in an Organization.

CO2. Helps in connecting statics for implementing Data ware houses, Business performance Measurements tools and helps in realizing the potential of Business Analysis in decision support.

Supply Chain Management

CO1. Gain a holistic understanding of supply chain management and the role of logistics management in it

CO2. Understand the basic drivers that lead to the performance of SCM in effective manner

CO3. Identify the role of value chain and its integration in the supply chain

CO4. Sensitize themselves to the role of global sourcing in making supply chain cost effective

CO5. Gain an insight into the role of Information Technology in making supply chain agile

Financial Risk Management

CO1. Make calculation to find out CaR and Var

CO2. Differentiate between forwards and futures

CO3. Understand the valuation of swaps and hedging mechanism

CO4. Find the intrinsic value of Options using BOPM and BSOPM

Banking and Insurance

CO1. Learn about the performance of banks in India

CO2. Learn about the sources and uses of bank funds

CO3. Understand the role and importance or insurance, its types. principles, and regulation

CO4. Understand the latest innovations in banking system

Buyer Behaviour

CO1. Students can examine and identify the major influences in buyer behavior

CO2. Students can develop an understanding between different consumer behavior influences and their relationships.

CO3. To enable students in designing and evaluating the marketing strategies based on fundamentals of consumer buying behavior.

Services and Digital Marketing

CO1. Students can examine the nature of services, and distinguish between products and services

CO2. Students can develop an understanding of the roles of relationship marketing andcustomer service in adding value to the customer's perception of a service.

CO3. Students can get Appraise the nature and development of a services marketing strategy.

Leadership and Change Management

CO1: The student will gain knowledge and understanding of different leadership styles and models. The student will be familiarized with the drivers, methods and model of change.

Performance Management

CO1. To produce Competent Executives

CO2. To transform Performance Appraisals, Performance Management

CO3. To build pivotal performance

CO4. To establish leading Human Capital

Data Visualization

CO1. Enables students to understand importance of Data —Visualization for Decision-Making.

CO2. Helps students to get practical experience of Data Visualization on Microsoft Power HI

Data Mining for Business

CO1: Enables students to understand the role of data mining in business and decision- making process.

BBA- Bachelor of Business Administration

Year: I /Semester: I

Principles of Management

CO1. To understand the nature and purpose of different types of organization.

CO2. To describe the different ways in which organization may be structured.

CO3. To understand basic concept of sources of business finance.

CO4. Explain the various forms of business organization.

CO5. To describe the functions of management.

Basics of Marketing

CO1. Demonstrate understanding of the strategic marketing environment.

CO2. Successfully identify viable segmentation and targeting approaches for markets.

CO3. Demonstrate understanding of the role of market intermediaries in introducing products to markets.

CO4. Develop framework for the product life cycle and pricing decision.

CO5. Demonstrate understanding the role of marketing intermediaries in introducing products to market.

Business Economics

CO1. To facilitate the students to learn the concepts of economics and apply them in real situations.

CO2. To understand the concepts of demand and various types of demand and concepts of supply.

CO3. To make the student to understand the theory of production function.

CO4. To understand the different type of cost concepts and economic scope.

CO5. To understand the market structure and pricing.

Year: I /Semester: II

Organisational Behaviour

CO1. Analyze individual and group behaviour and understand the implications of organizational behaviour on the process of management.

CO2. Identify different motivational theories and evaluate motivational strategies used in variety of organizational setting.

CO3. Evaluate the appropriateness of various leadership styles and conflict management strategies used in organizations.

CO4. Describe and access the basic design elements of organizational structure of evaluate their impact in employee.

CO5. Explain how organizational change and culture affect working relationship within organizations.

Business Statistics

CO1. Explain probability theory and probability distributions in relation to general statistics analysis.
CO2. Analysis and contrast techniques and basic of quantitative methods within the context they are to be applied.
CO3. Evaluate sampling methodologies and their associated analysis.

CO4. Design, evaluate and apply regressions analysis.

CO5. Critically evaluate statistical results.

Financial Accounting

CO1. Explain the book keeping and accounting and purposes and functions of accounting.

CO2. Explain the difference between management and financial accounting.

CO3. Describe the main elements of financial accounting information.

CO4. Identify the main financial statement and their purposes.

CO5. Demonstrate an understanding on IAS and IFRS.

Year: II /Semester: III

Human Resources Management

CO1. To provide the students with analytical skills to utilize human resources metrics and technological application to enhance the effectiveness of recruitment training development and relation of human resource.

CO2. Formulate human resource policies and practices that help promote the organizations strategic goals.

CO3. Develop an understanding of the challenges of human resources management and successfully manage and resolve conflict.

CO4. Remonstrate as commitment to lifelong learning by participation in profession development activities.

CO5. Evaluate legal and ethical issues as they apply to human resource management locally and globally

Information Technology for Business

CO1. Be able to use current technique, skills and tools necessary for computing practice.

CO2. Demonstrate proficiency in Microsoft Office and windows file management.

CO3. Integrate HTML, CSS, Visual Basic.net and Java Script into stand alone and design web pages.

CO4. Understand best practices and standard and their applications.

CO5. Use current computing techniques, skills or technologies.

Information Technology -Lab

CO1: The aim of this course is to give a management students practical experience on working in typical office software like MS-Office

Financial Management

CO1. Demonstrate an understanding of the overall Role and importance of the finance function.

CO2. Demonstrate understanding of the goals of the finance manager.

CO3. Identify finding source, instruments and markets.

CO4. Demonstrate knowledge of the value of money over time and its uses.

CO5. Prepare and evaluate operating as well as capital budgets.

Year: II //Semester: IV

Business Law & Ethics

CO1: It helps the students to understand importance of contracts act and ethics.

CO2: It focuses on legal aspects of contracts

Marketing Research

CO1. To enhance the students understanding of the marketing research industry.

CO2. To develop skills required by the researcher and understand different applications of marketing research.

CO3. To explore different approaches of marketing research.

CO4. To be able to expat marketing research data for management decision making.

CO5. To analysis and interpret both qualitative and quantitative data.

Management Science

CO1. To understand the cote concept of management science and operations management.

CO2. To use mathematical tools and techniques to aid decision making and planning.

CO3. To use different inventory control models, forecasting techniques and queuing models in business.

CO4. To enhance the level of critical thinking.

CO5. To use spread sheets to formulate and use simple models.

Year: III /Semester: V

Financial Markets and services (F)

CO1. To understand the characteristics of different financial assets.

CO2. To understand the benefit of diversification of holding a portfolio of assets.

CO3. How to apply different valuation model to evaluate fixed income securities stock.

CO4. Explain how to use different derivative securities to manage their investment risk.

CO5. To understand the advantage and disadvantages of mutual funds.

Brand Management (M)

CO1: To Provide an understanding of different types of Brand Awareness, Equity.

Organization Development (HR)

CO1: This course offers an exploration of the field of OD through its human and social process and address new management and OD paradigms in rapidly changing context of globalisation and Organisational Change

Analysis of Investment in Financial Assets (F)

CO1 -The objective of the course is to provide the students with a basic view of valuation and investment in financial assets

CO2: To explain the basic concepts of risk and return and various methods of analysis

CO3: To explain the concept portfolio and the various portfolio theories and evaluation methods

Retail Management (M)

CO1: This course introduces the role of retailing and various formats and theories

CO2: It focuses on distribution management

Performance Appraisal and Counselling (HR)

CO1: This course offers an understanding of employee performance and measures to improve through HRD

Insurance (F)

CO1: The course helps the students to know about insurance

CO2: It focuses on latest trends in insurance

Customer Relationship Management(M)

CO1: To know the importance of customer involvement and relations with corporations making the student know and build beneficial relations

Compensation Management (HR)

CO1: To impart techniques and methods for competing employer-employee negotiations for arriving at optimal compensation system

Year: III/Semester: VI

Banking (F)

CO1: The course helps the students to know about banking and its regulations

CO2: It focuses on latest trends in banking

Buyer Behaviour (M)

CO1: To understand the depth concept & theories of Consumer buying Behaviour

CO2: To focus on Learning theories

CO2: To know the impact of culture on Buyer Behaviour

Leadership and Change Management (HR)

CO1: This course focuses an understanding into Leadership activities and its influence on the Management of change in the organisations

Risk Analysis and Management (F)

CO1: This course enables the students to understand the risk associated with financial institutions and helps to manage risk effectively

Advertising and Sales promotion (M)

CO1: It helps the students to understand the importance of advertisements for promotion of products

CO2: It focuses on media planning, personal selling and sales promotion

Talent and Knowledge Management (HR)

CO1: The main objective of the course is to offer knowledge on various approaches to talent and knowledge management in business organisations.

CO2: The course also facilitate discussion on a variety of institutional strategies and models for dealing with talent and knowledge management

International Finance (F)

CO1: The objective of this course to provide inputs on globalisation, exchange Risk Management, financing of International Trade etc.

Rural Marketing (M)

CO1: The objective is to introduce rural market dynamics to the students so that they can learn about rural behaviour and factor that differs from urban market

Employee Relations (HR)

CO1: Apply the principles of employee relations in an organizational contact.

CO2: Determines appropriate advice relating to rights, duties and obligations of the employment relationship.

CO3: Evaluate the broader impact of negative and positive employee relationships.

Project Report and Viva-Voce

CO1: The students are equipped with entrepreneurial and managerial skills for effective and business management

CO2: Graduates gain expertise in the area of leadership, interpersonal skills, entrepreneurship, and marketing.

CO3: Graduate will competent the global competitive world more professionally.

CO4: Graduate are empowered to be a responsible citizen and lead the business with moral and ethical value through business ethics courses.

Department of Bio-Technology

Cell biology and Genetics

CO1- Understand the concept of inheritance.

CO2- Understand the concept of Epistasis.

CO3- Understand the concept of Recombination, cell structure and its functions, behavior of different cells

Biological Chemistry and Microbiology

CO1- Helps the students have a thorough understanding of the microbiology, including the prevention and control of infections and diseases.

CO2- Students have a good opportunity in quality control in pharma industry for checking the signs of contamination and it also provides a better scope for the students as a technician in different medical and government organizations for the screening and analyzing the biological samples from different sources.

CO3- The student would be able to comprehend the structure of the major classes of macromolecules.

Molecular biology and r-DNA Technology

CO1- Understand the molecular aspects of inheritance in prokaryotes and Eukaryotes.

CO2- Understand the molecular biology aspects of genes and their expression and regulation patterns in both prokaryotes and in Eukaryotes.

CO3- students will be able to gain the knowledge in different Gene manipulation techniques.

CO4- Students also gain knowledge in applications of biotechnology in different fields.

Bioinformatics and BIOSTATISTICS

CO1- Understand the basics of Bioinformatics and Biostatistics.

CO2- Students will be able to learn different types of Databases, Sequence Alignment tools.

C03- Biostatistics helps the students to learn the different statistical methods like concepts of probability, hypothesis testing.

CO4- Biostatistics helps the students to learn the probability distributions and Applications of Biostatistics.

Molecular Biology

CO1- Understand the basic concepts of molecular biology.

CO2- Understand the molecular biology aspects of genes and their expression and regulation patterns in both prokaryotes and in Eukaryotes.

CO3- Students understand the chemical and molecular processes that occur in and between the cells.

C04- students will gain the knowledge in structural organization of genes and organization of Genomes.

Medical Biotechnology

CO1- Students will learn the basics of Karyotyping.

CO2- Understands the basics of different prenatal diagnostic methods.

CO3- Students will be able to learn the role of vaccines for treating different diseases.

CO4- Understands the concept of different inherited diseases.

Bioprocess technology

CO1- Understands the basics of Bioprocess technology.

CO2- students will be aware of various methodologies for biomass production.

CO3- Understands the concept of fermentation, Fermentation technology, design of fermenter.

CO4- Understands product isolation using various Analytical methods.

Genetic Engineering and Immunology

CO1- Understand the cloning principles and strategies.

CO2- Understands the Analysis of clones.

CO3- Understands the principles of immunology

CO4- Learn the structure and function of immunoglobulin's, Antigen antibody reactions and autoimmune diseases.

Animal And Industrial Biotechnology

CO1- students will be able to comprehend the basic concepts of establishing animal cell cultures.

CO2- Understands the principles and applications of molecular pharming.

CO3- Understands the role of industrial important microorganisms in the production of different proteins and Enzymes.

Plant And Environmental Biotechnology

CO1- learn the basic concepts of plant tissue culture techniques.

CO2-Understand the role and application of Recombinant DNA technology in production of Novel compounds.

CO3- Understand the basic concept of Environmental pollution, types of pollutants and related hazards.

CO4- Acquire knowledge of bioremediation and its application in environmental cleanup.

Department of Botany

Microbial Diversity of Lower Plants

CO1: To acquire information regarding microbial variety.

CO2: To get knowledge structure and transmission of plants diseases caused by bacteria and viruses.

CO3: To know different plant diseases and their control measures.

CO4: To comprehend life patterns of various algal and fungal species.

CO5: To know the nutritional value of algae.

CO6: Economic importance of lichens.

CO7: To gain knowledge about life cycles and systematic position of Bryophytes and Pteridophytes.

CO8: practical Gram staining of bacteria.

CO9: Demonstrate practical skills in fundamental microbiological techniques.

CO10: To learn about Mushroom cultivation technique.

CO11: Through section cutting to observe morphology (vegetative and reproductive structure) Bryophytes and pteridophytes,

Gymnosperms, Taxonomy of Angiosperms and Ecology

CO1: Demonstrate proficiency in preparing double stained permanent mounts of section cuttings.

CO2: Apply techniques of conservation and propagation of medicinal plants.

CO3: Interpret the process of harvesting, drying and storage of medicinal herbs (Herbarium preparation)

CO4: Sketch the anatomical characters of Hydrophytes and Xerophyt

SECOND YEAR, III-SEMESTER

Plant Anatomy, Embryology

CO1: Meristems, Leaf ontogeny diversity of internal structure.

CO2: General account of adaptation in xerophytes and hydrophytes

CO3: Anomalous secondary growth of stem, Wood structures study of local timbers

CO4: Demonstrate pollen viability test

CO5: Study of ovule, endosperm types and types of embryosac

CO6: Demonstrate the practical skill knowledge of Temporary and Permanent double stain mounting of various stem Anatomy

CO7: Stomatal types using epidermal peels.

CO8: Developmental stages of dicot and monocot.

Nursery and Gardening

CO1: Nursery scope and building up of infrastructure nursery planning and seasonal activities.

CO2: Seed production technology seed testing and certification.

CO3: To study the different vegetative propagation methods and greenhouse maintenance.

CO4: Gardening landscape and home design parks and gardening operations.

CO5: To study about some famous gardens of India. Cultivation of important cut flowers like Aster, Chrysanthemum, Dahlia, Gerbera, Marigold and Rose.

Biofertilizers and Organic Farming

CO1: Students can clarify the ideas of natural cultivating.

CO2: Utilization of different natural contributions for crop creation.

CO3: Fungal Biofertilizers, colonization of VAM

CO4: Organic Farming, Recycling of bio-degradable municipal agriculture and industrial waste.

CO5: To know how to making bio compost, methods of vermicomposting.

Cell Biology, Genetics and Plant physiology

CO1: To know about chromosome morphology and special types of chromosomes, euchromatin and heterochromatin, Karyotype.

CO2: How linkage and crossing over takes place and recombination frequency.

CO3: Demonstrate the practical skill knowledge of identifying Mitotic cell division stages in onion/Garlic root tips.

CO4: Solve the genetic problems based on Mendelian inheritance

CO5: Demonstrate plant physiological experiments like plasmolysis, catalase activity, paper chromatography, protein estimation.

CO6: Study of mineral deficiency symptoms of micro and macro nutrients.

Green House Technology

CO1: To maintain irrigation system in greenhouses water quality and water sanitation.

CO2: Net -poly houses low-cost green houses.

CO3: Utilizes of organic and inorganic fertilizers.

CO4: Management of pest and diseases.

Mushroom Culture Technology

CO1: Cultivation of different types of mushrooms like edible and poisonous mushrooms in India.

CO2. To know the preparation of spawn using paddy straw, sugarcane trash and maize straw.

CO3. Types of food preparation from mushroom.

CO4. To get knowledge of research centers National and Reginal level.

CO5. Marketing in India and abroad, Export value.

Biodiversity and Conservation

CO1: Study of plant diversity and its scope local biodiversity

CO2: Loss of Agro biodiversity and Projected scenario for biodiversity loss.

CO3: Biodiversity information management and communication.

CO4: Conservation of Biodiversity Genetic, species and ecosystem diversity.

CO5: Principles of conservation In-situ and Ex-situ conservation.

CO6: Role of plants in relation to Human Welfare, importance of forestry their utilization and commercial aspects.

Seed Technology

CO1: Collection and storage of pollen for artificial pollination.

CO2: Seed dormancy types causes and methods of breaking dormancy.

CO3: Physiological processes during seed germination, seed respiration.

CO4: To maintain seed banks -National and International level.

CO5: Specific seed certification standard maintained by issuing certificate

Tissue Culture and Biotechnology

CO1: Application of tissue culture used in production of pathogen free somonoclonal and synthetic seed.

CO2: To get knowledge about Organogenesis, embryogenesis.

CO3: To know the methods of gene transfer microinjection and electroporation

Analytical Techniques in Plant Sciences

CO1: Study of different microscope techniques Light, fluorescent and TEM, SEM

CO2: Study of blotting techniques southern, northern western DNA finger printing, DNA sequencing.

CO3: Demonstration of ELISA.

CO4: Isolation of chloroplast by differential centrifugation.

CO5: Multicultural competence Understanding of various analytical techniques of plant sciences.

CO6: Biostatistics -data, population and parameters Arithmetic mean, Chi-square test.

Department of Chemistry

CO1: Basic concepts of periodic elements, Structure and reaction mechanism of Organic compounds, Laws governing physical state of matter (gas and solid state), Quantitative analysis.

CO2: Zero group and d-block elements study, reactivity of aromatic compounds and halogens. Student will learn laws related to solutions and colloids, concept of chemical bonding and Qualitative analysis and non-aqueous solvents.

CO3: Concepts of Metallurgy and f-block elements. Study of Hydroxy, Carbonyl compounds and their derivatives, phase rule, colligative properties, Knowledge of synthesis of drugs, usage of pesticides.

CO4: Student learns about Analytical techniques like TLC, CC, GC, HPLC. Knowledge about Nitrogen compound and Carboxylic acid derivatives, Electrochemistry and spectral methods of characterization are learnt.

CO5: Concepts of Coordination compounds, details about amino acids, proteins and heterocyclic compounds, basic concepts of chemical kinetics and photochemistry.

CO6: (E1) Organo metallic chemistry, Bioinorganic Chemistry importance in daily life, Environmental sustainability with respected to conventional energy resources and non-conventional resources.

CO7: (E2) Concepts and applications of green chemistry for environmental protection.

CO8: Concepts of symmetry, reactivity of metal complexes, concepts of thermodynamics, carbohydrates and stereochemistry of carbon compounds

CO9: (E1) Metal carbonyls, synthetic strategies including pericyclic reaction including asymmetric synthesis, material science and catalysis.

Department of Computer Hardware

Digital Circuits and Combinational Logic

CO1: Basics of digital electronics is learnt thoroughly

CO2: Can design digital and combinational circuits.

CO3: Can get the application-oriented knowledge.

CO4: Network theorems are learnt thoroughly.

CO5: Practical experience for the circuit working.

Digital Design

CO1: To analyze State Machines and solve complex digital system design problems.

CO2: Practical sessions involve real-time physical and simulation training.

CO3: ASM charts are learnt

CO4: Operational amplifiers are learnt both theoretically and experimentally

Microprocessor Architecture, Programming and Applications with the 8085/86

CO1: Understanding Architectures of Microprocessors and internal resources

CO2: Programming in Machine language or Assembly language

CO3: Learn to interfacing compatible chipsets to make a complete microcomputer.

CO4: Thorough understanding of instruction set and routines helps in making new interfaces and control.

Microcontroller and Embedded Systems

CO1: Students are trained in different Microcontrollers both in Software and Hardware.

CO2: They learn Instruction set, programming techniques in Assembly, C

CO3: Also, Arduino C++ along with embedded trainers and simulators are learnt.

CO4: They create new Embedded controls and small automation systems.

VHDL

CO1: Will learn to write programs to produce efficient hardware designs

CO2: Perform high-level HDL simulations

CO3: Can demonstrate programming skills in advanced combinational and sequential digital circuits by using VHDL.

Computer Hardware

CO1: Can Assemble/setup and upgrade personal computer systems

CO2: Perform installations, configuration, and upgrading of computer hardware and software.

CO3: Will able to connect peripherals and install associated device drivers

CO4: Diagnose and troubleshoot computer hardware and software and other peripheral equipment.

Internet of Things (IoT)

CO1: Students learn basic principles and requirements of IoT

CO2: Programming IoT in Python Language.

CO3: Raspberry pi, ESP32, Arduino

CO4: IoT Automations.

Department of Commerce

Financial Accounting

CO1. Prepare financial statements in accordance with Generally Accepted Accounting Principles

CO2. Apply cost accounting methods to evaluate and project business performance.

CO3. The student will experience real-world learning and application of skills via their internship

CO4. Apply appropriate judgment derived from knowledge of accounting theory, to financial analysis and decision making.

CO5. Describe the main elements of financial accounting information – assets, liabilities, revenue and expenses

Business Economics

CO1 To facilitate the students to learn the concepts of economics and apply them in real life situations, differentiate between micro and macroeconomics.

CO2 To facilitate the student to know the importance of money, economic and non-economic concepts.

CO3 To make the student understand and differentiate between the revenues and costs.

CO4 To make the student understand production, supply and different market structures and market equilibrium.

CO5 To facilitate the student to understand the macroeconomic concepts of the country by understanding national income, etc.

Business Organization and Management

CO1 Develop knowledge, skills, attitudes, and values necessary for success in management and leadership positions in a variety of business, governmental education, and nonprofit settings.

CO2 Acquire knowledge through the application of principles of sound research designs to critical evaluation of academic literature related to organizational management

CO3 Demonstrate personal and professional ethical responsibility in all managerial and organizational decision making.

Fundamental Information Technology

CO1. An ability to apply knowledge of mathematics, including discrete mathematics, probability, statistics, science, computer science and engineering, electronic engineering and electrical engineering as it applies to computer hardware and software.

CO2. An ability to design and conduct experiments, as well as to organize, analyze and interpret data to produce meaningful conclusions and recommendations.

CO3. An ability to design hardware and software systems, components, or processes to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

CO4. An ability to work individually or as a member with responsibility to function on multi-disciplinary teams

CO5. To develop understanding of managerial aspects so as to use Information technology effectively and efficiently.

CO6. To develop capacity to initiate/lead an e-business venture/ business segment

B. Com (Regular) Year: I Semester: II

Financial Accounting

CO1. Recognize and understand ethical issues related to the accounting profession

CO2. Apply cost accounting methods to evaluate and project business performance

CO3. Define bookkeeping and accounting

CO4. Explain the general purposes and functions of accounting

CO5. Describe the main elements of financial accounting information – assets, liabilities, revenue and expenses

Managerial Economics

CO1. To explore the students the relevance of various trade theories/models

CO2. To explore the students to understand deep current issues in International Trade

CO3. To enable students to use economic tools to analyze diversity of issues in the international economy

Principles of Management

CO1 Equip with professional, inter personal and entrepreneurial skills.

CO2 Gear up with updated knowledge in implementing business practices

CO3 Prepare for post graduate studies and to achieve success in their professional careers

CO4 Assess managerial practices and choices relative to ethical principles and standards.

CO5 Specify how the managerial tasks of planning, organizing, and controlling can be executed in a variety of circumstances.

CO6 Determine the most effective action to take in specific situations.

CO7 Evaluate approaches to addressing issues of diversity

Fundamental Information Technology

CO1. To prepare students to apply their knowledge and multifaceted skills to be employed and excel in IT Professional careers and/or to continue their education in IT and/or related post graduate programmes.

B. Com(e-Commerce) Year: I Semester: I

Financial Accounting

CO1 Prepare financial statements in accordance with Generally Accepted Accounting Principles

CO2 Apply cost accounting methods to evaluate and project business performance.

CO3 The student will experience real-world learning and application of skills via their internship

CO4 Apply appropriate judgment derived from knowledge of accounting theory, to financial analysis and decision making.

CO5 Describe the main elements of financial accounting information – assets, liabilities, revenue and expenses

Business Economics

CO1 To facilitate the students to learn the concepts of economics and apply them in real life situations, differentiate between micro and macroeconomics.

CO2 To facilitate the student to know the importance of money, economic and non-economic concepts.

CO3 To make the student understand and differentiate between the revenues and costs.

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CO2 An ability to apply knowledge of mathematics, including discrete mathematics, probability, statistics, science, computer science and engineering, electronic engineering and electrical engineering as it applies to computer hardware and software.

CO3 An ability to design and conduct experiments, as well as to organize, analyze and interpret data to produce meaningful conclusions and recommendations.

CO4 An ability to design hardware and software systems, components, or processes to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

CO5 An ability to work individually or as a member with responsibility to function on multi-disciplinary teams

CO6 To develop understanding of managerial aspects so as to use Information technology effectively and efficiently.

Fundamentals of Electronic Commerce

CO1. Demonstrate an understanding of the foundations and importance of E-commerce

CO2. Describe the infrastructure for E-commerce

CO3. Assess electronic payment systems

CO4. Demonstrate an understanding of retailing in E-commerce

Financial Accounting

CO1 Recognize and understand ethical issues related to the accounting profession

CO2 Apply cost accounting methods to evaluate and project business performance

CO3 Define bookkeeping and accounting

CO4 Explain the general purposes and functions of accounting

CO5 Describe the main elements of financial accounting information – assets, liabilities, revenue and expenses

Managerial Economics

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CO3 To enable students to use economic tools to analyze diversity of issues in the international economy

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CO3 Prepare for post graduate studies and to achieve success in their professional careers

CO4 Assess managerial practices and choices relative to ethical principles and standards.

CO5 Specify how the managerial tasks of planning, organizing, and controlling can be executed in a variety of circumstances.

CO6 Determine the most effective action to take in specific situations.

CO7 Evaluate approaches to addressing issues of diversity

E-commerce and Digital Marketing

CO1 Describe the infrastructure for E-commerce

CO2 Describe the key features of Internet, Intranets and Extranets and explain how they relate to each other.

CO3 Discuss legal issues and privacy in E-Commerce

CO4 Assess electronic payment systems

CO5 Recognize and discuss global E-commerce issues

CO6 Develop a plan for marketing a product of business online.

CO7 Integrate social media tools into a marketing communications strategy.

CO8 Use a publishing platform to build a web presence with integrated data collection and links to social media

B. Com (Regular) Year: II Semester: III

Advanced Accounting –I

CO1. Ability to explain and demonstrate accounting practice for equity investments (including accounting for group structures), measurement and disclosure of information, and financial decision making

CO2. Identify and explain the conceptual underpinnings for current advanced financial accounting and reporting issues.

CO3. Identify and explain current issues related to financial accounting and financial reporting.

CO4. Critically analyze and interpret published financial information.

Business Statistics –I

CO1 Emphasize statistical literacy and develop statistical thinking

CO2 Use real data

CO3 Understand how to organize and summarize data by using descriptive statistics and appropriate statistical graphics.

CO4 Understand the concept of probability and its applications in a business context.

Banking law and Practices

CO1 Understand the features of Indian Banking System

CO2 Know the significant contribution of different types of banks – Appreciate how important banking services for the economy

CO3 Appreciate the role of banks and their regulatory and compliance requirements – Understand the Government and RBI's

CO4 Distinguish between the concepts of CRR and SLR

Entrepreneurial Development

CO1. Have the ability to discern distinct entrepreneurial traits

CO2. Know the parameters to assess opportunities and constraints for new business ideas.

CO3. Understand the systematic process to select and screen a business idea

CO4. Design strategies for successful implementation of ideas

CO5. Write a business plan

B. Com (General) Year: II Semester: IV

Corporate Accounting –I

CO1. A comprehensive understanding of the advanced issues in accounting for assets, liabilities and owner's equity.

CO2. The ability to account for a range of advanced financial accounting issues.

CO3. An understanding of the accounting requirements for a corporate group and familiarity with the theory underlying the methods used to account for inter-company investments.

CO4. The ability to prepare consolidated accounts for a corporate group.

Business Statistics –II

CO1. Basic statistical concepts such as statistical collection, species characteristics, statistical series, tabular and graphical representation of data, measures of central tendency, dispersion and asymmetry, correlation and regression analysis, time series analysis are learnt

CO2. Apply knowledge to solve simple tasks using computer (MS Excel)

CO3. Independently calculate basic statistical parameters (mean, measures of dispersion, correlation coefficient, indexes)

CO4. Based on the acquired knowledge to interpret the meaning of the calculated statistical indicators

CO5. Choose a statistical method for solving practical problems

Financial Institution and Market:

CO1. To discuss the nature, determination and role of the interest

CO2. To explain the role and benefits of the financial intermediaries

CO3. To explain the difference between future, Option and swaps

CO4. To calculate Present Value and understand and discuss how these concepts can also be related to explain the term structure of interest rates.

CO5. To explain the functioning and history of foreign exchange markets the significance of the balance of payment and the integration of currency areas

Auditing

CO1. Discuss the need for an independent or external audit and describe briefly the development of the role of the assurance provider in modern business society.

CO2. For major transaction types and account balances, identify appropriate assertions at risk and apply appropriate audit procedures to test the assertions identified.

CO3. Understand auditors' legal liabilities, and be able to apply case law in making a judgment whether auditors might be liable to certain parties

CO4. Describe the quality control procedures necessary to ensure that a competent assurance engagement is performed, and apply professional ethics including Code of Conduct to specific scenarios.

Year: II Semester: III

Advanced Accounting –I

Students who successfully complete this paper should be able to:

CO1. Ability to explain and demonstrate accounting practice for equity investments (including accounting for group structures), measurement and disclosure of information, and financial decision making

CO2. Identify and explain the conceptual underpinnings for current advanced financial accounting and reporting issues.

CO3. Identify and explain current issues related to financial accounting and financial reporting.

CO4. Critically analyse and interpret published financial information.

Business Statistics –II

CO1. Explain basic statistical concepts such as statistical collection, species characteristics, statistical series, tabular and graphical representation of data, measures of central tendency, dispersion and asymmetry, correlation and regression analysis, time series analysis

CO2. Apply knowledge to solve simple tasks using computer (MS Excel)

CO3. Independently calculate basic statistical parameters (mean, measures of dispersion, correlation coefficient, indexes)

CO4. Based on the acquired knowledge to interpret the meaning of the calculated statistical indicators

CO5. Choose a statistical method for solving practical problems

Banking law and Practices

CO1. Understand the features of Indian Banking System

CO2.For major transaction types and account balances, identify appropriate assertions at risk and apply appropriate audit procedures to test the assertions identified.

CO3. Understand auditors' legal liabilities, and be able to apply case law in making a judgment whether auditors might be liable to certain parties

CO4. Describe the quality control procedures necessary to ensure that a competent assurance engagement is performed, and apply professional ethics including Code of Conduct to specific scenarios.

Year: II Semester: III

Advanced Accounting –I

CO1. To explain and demonstrate accounting practice for equity investments (including accounting for group structures), measurement and disclosure of information, and financial decision making

CO2. To identify and explain the conceptual underpinnings for current advanced financial accounting and reporting issues.

CO3. Identify and explain current issues related to financial accounting and financial reporting.

CO4. To Critically analyze and interpret published financial information.

Business Statistics –II

CO1. To explain basic statistical concepts such as statistical collection, species characteristics, statistical series, tabular and graphical representation of data, measures of central tendency, dispersion and asymmetry, correlation and regression analysis, time series analysis

CO2. Apply knowledge to solve simple tasks using computer (MS Excel)

CO3. Independently calculate basic statistical parameters (mean, measures of dispersion, correlation coefficient, indexes)

CO4. Based on the acquired knowledge to interpret the meaning of the calculated statistical indicators

CO5. Choose a statistical method for solving practical problems

Banking law and Practices

CO1. Understand the features of Indian Banking System

CO2.Know the significant contribution of different types of banks – Appreciate how important banking services for the economy

CO3. Appreciate the role of banks and their regulatory and compliance requirements – Understand the Government and RBI's

CO4. Distinguish between the concepts of CRR and SLR

Web technology

CO1. To develop a dynamic webpage by the use of java script and DHTML

CO2. To write a well-formed / valid XML document.

CO3. To connect a java program to a DBMS and perform insert, update and delete operations on DBMS table.

CO4. To write a server-side java application called Servlet to catch form data sent from client, process it and store it on database.

CO5. To write a server-side java application called JSP to catch form data sent from client and store it on database.

Semester IV

Corporate Accounting –I

CO1. A comprehensive understanding of the advanced issues in accounting for assets, liabilities and owner's equity.

CO2. The ability to account for a range of advanced financial accounting issues.

CO3. An understanding of the accounting requirements for a corporate group and familiarity with the theory underlying the methods used to account for inter-company investments.

CO4. The ability to prepare consolidated accounts for a corporate group.

Business Statistics –II

CO1. Explain basic statistical concepts such as statistical collection, species characteristics, statistical series, tabular and graphical representation of data, measures of central tendency, dispersion and asymmetry, correlation and regression analysis, time series analysis

CO2. Apply knowledge to solve simple tasks using computer (MS Excel)

CO3. Independently calculate basic statistical parameters (mean, measures of dispersion, correlation coefficient, indexes)

CO4. Based on the acquired knowledge to interpret the meaning of the calculated statistical indicators

CO5. Choose a statistical method for solving practical problems

Financial Institution and Market:

CO1. Discuss the nature, determination and role of the interest

CO2. To explain the role and benefits of the financial intermediaries.

CO3. Explain the difference between future, Option and swaps

CO4. To calculate Present Value and understand and discuss how these concepts can also be related to explain the term structure of interest rates.

CO5. Explain the functioning and history of foreign exchange markets the significance of the balance of payment and the integration of currency areas

PHP (Hypertext preprocessor)

CO1. Understand how server-side programming works on the web.

CO2. PHP Basic syntax for variable types and calculations.

CO3. Using PHP built-in functions and creating custom functions

CO4. How to receive and process form submission data.

CO5. Reading and writing cookies.

CO6. Create a database in phpMyAdmin.

CO7. Read and process data in a MySQL database

Year: III Semester: V

CO 1. Express the place and role of cost accounting in the modern economic environment,

CO 2. Select the costs according to their impact on business,

CO 3. Differentiate methods of schedule costs per unit of production,

CO 4. Differentiate methods of calculating stock consumption,

CO 5. Interpret the impact of the selected costs method,

CO 6. Identify the specifics of different costing methods

Business Law – I

CO1. Understand the sources of law, including the development and operation of common law, precedent and court hierarchy, and the roles of parliament and the courts, and the role of the law of contract

CO2. Understand some basic strategies that can be used to solve legal problems

CO3. Read, analyse and apply statutes using the appropriate methods of statutory interpretation;

CO4. Conduct basic legal research, including by using legal databases to research case law, legislation and scholarly journal articles;

Taxation-I

CO1. Students will apply critical thinking and problem-solving skills related to taxation of individuals, flow through entities, and corporations. In addition, students will recognize potential opportunities for tax savings and tax planning.

CO2. Students will convert complex and technical tax terminology into language that translates to nontechnical audiences. This outcome allows students to demonstrate strong interpersonal communication skills that build relationships with clients over time, and be able to prepare work products with careful attention to word choice, tone, and accuracy.

CO3. Students will use computer-based and paper-based systems to thoroughly research and analyze tax codes, tax law, rulings and interpretations, providing for adaptability as the tax law changes over time.

Advance Corporate Accounting

CO1. Ability to explain and demonstrate accounting practice for equity investments (including accounting for group structures), measurement and disclosure of information, and financial decision making

CO 2. Identify and explain the conceptual underpinnings for current advanced financial accounting and reporting issues.

CO 3. The ability to account for a range of advanced financial accounting issues.

CO 4. An understanding of the accounting requirements for a corporate group and familiarity with the theory underlying the methods used to account for inter-company investments.

CO 5. The ability to prepare consolidated accounts for a corporate group.

Financial Management- I

CO 1. Describe and apply the basic techniques of financial statement analysis;

CO 2. Explain the relationship between strategic business analysis, accounting analysis and financial analysis;

CO 3. Identify and utilize value-relevant information contained within financial statements;

CO 4. Recognize and explain the fundamental role of accounting numbers in the valuation of entities and the key financial claims on these entities' assets (equity and debt securities);

CO 5. Understand the impact of financial reporting choices on the usefulness of reported earnings to predict future performance

Accounting Standard I

CO1. Identify and describe different types of inter-entity relationships based on relevant Australian Accounting Standards.

CO2. Discuss and solve accounting issues that arise from inter-entity relationships.

CO 3. Explain the consolidation process and prepare consolidated financial statements based on relevant accounting Standards.

CO4. Demonstrate the ability to perform complex accounting techniques and methods as required by the relevant accounting standards.

CO 5. Read and analyse consolidated financial statements including accounting policies and other information disclosures.

CO6. Conduct practical research in the accounting discipline.

Semester VI
Managerial Accounting

CO 1. Critically analyze and provide recommendations to improve the operations of organizations through the application of management accounting techniques;

CO 2. Demonstrate mastery of costing systems, cost management systems, budgeting systems and performance measurement systems

CO3. Evaluate the costs and benefits of different conventional and contemporary costing systems;

CO 4. Learn independently and to demonstrate high level personal autonomy and accountability;

Company law

CO 1. To know the relevant statutory materials, case law and regulatory practice relating to the major topics in Company Law

CO 2. To understanding of the economic function of the company as a legal structure for business, the legal nature and significance of the limited liability of a company, the price paid for limited liability, the legal nature of the role of the board of directors of a company and of the legal relationships between a company's management and its various stakeholders.

CO 3. To know the current policy trends and developments in Company Law and of the likely impact of these trends and developments on the major topics in Company Law.

CO 4. To collect information from the sources available.

Taxation II

CO 1. Students will demonstrate understanding of and apply consistently the ethical principles and professional standards related to the profession, including the standards in taking a tax position.

CO 2. Students will also show the ability to express and follow rules of independence exhibiting the highest sense of professional ethics.

CO 3. Students will be able to explain key differences in taxing policies related to expatriates and the countries they live and work in — allowing them to reflect on cultural and ethnic differences in approaches to business and taxation policies

Computerized Accounting:

CO 1. Processing a variety of accounting transactions;

CO 2. Converting a manual accounting system to a computer-based system;

CO 3. Prepare Financial Statements on the completion of the accounting cycle in a timely fashion.

CO 4. Create and customize a statement of cash flows for a specific period.

CO 5. Investigate the detail underlying income statement items

Financial Services-I

CO 1. The course provides a complete package of finance and financial services related subjects so that the students are well equipped with the functional aspects of the various types of financial products and services available in our country

CO 2. Demonstrate broad and coherent knowledge of the theoretical and professional discipline of banking, finance, investment analysis, portfolio management, accountancy

CO 3. Exercise informed commercial judgment within a professional setting which emphasizes ethical and responsible decision making

CO 4. Acquire and synthesis information within a complex professional setting

IFRS-II

CO 1. Understand and explain the structure of the framework of IFRS

CO 2. Apply relevant financial reporting standards to key elements of financial reports

CO 3. Identify and apply disclosure requirements for companies in financial reports and notes

CO 4. Prepare group financial statements (excluding group cash-flow statements) including subsidiaries, associates and joint ventures

Accounting Standards-II

CO 1. Know and apply accounting and finance theory;

CO 2. Explain and apply international accounting standards;

CO 3. Critically evaluate financial statement information;

CO 4. Evaluate and compare different investments.

Cost Accounting –I

CO 1. Explain the concept and role of cost accounting in the business management of manufacturing and non-manufacturing companies.

CO 2. Define the costs and their impact on value creation in the manufacturing and non-manufacturing companies.

CO 3. Use accounting methods of cost calculation.

Business Law – I

CO1. Understand the sources of law, including the development and operation of common law, precedent and court hierarchy, and the roles of parliament and the courts, and the role of the law of contract

CO 2. Understand some basic strategies that can be used to solve legal problems

CO 3. Read, analyze and apply statutes using the appropriate methods of statutory interpretation;

CO 4. Conduct basic legal research, including by using legal databases to research case law, legislation and scholarly journal articles;

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CO 2. Students will convert complex and technical tax terminology into language that translates to nontechnical audiences. This outcome allows students to demonstrate strong interpersonal communication skills that build relationships with clients over time, and be able to prepare work products with careful attention to word choice, tone, and accuracy.

CO 3. Students will use computer-based and paper-based systems to thoroughly research and analyze tax codes, tax law, rulings and interpretations, providing for adaptability as the tax law changes over time.

Advance Corporate Accounting

CO 1. Ability to explain and demonstrate accounting practice for equity investments (including accounting for group structures), measurement and disclosure of information, and financial decision making

CO 2. Identify and explain the conceptual underpinnings for current advanced financial accounting and reporting issues.

CO 3. The ability to account for a range of advanced financial accounting issues.

CO 4. An understanding of the accounting requirements for a corporate group and familiarity with the theory underlying the methods used to account for inter-company investments.

CO 5. The ability to prepare consolidated accounts for a corporate group.

Financial Statement Analysis

CO 1. Describe and apply the basic techniques of financial statement analysis;

CO 2. Explain the relationship between strategic business analysis, accounting analysis and financial analysis;

CO 3. Identify and utilize value-relevant information contained within financial statements;

CO 4. Recognize and explain the fundamental role of accounting numbers in the valuation of entities and the key financial claims on these entities' assets (equity and debt securities);

CO 5. Understand the impact of financial reporting choices on the usefulness of reported earnings to predict future performance

Financial Management- I

CO 1. To make the students understand the techniques of financial management.

CO 2. Analysis and differentiate the concepts of capital budgeting techniques, traditional and modern discounting methods.

CO 3. To understand the tools and techniques of cash cycle and tools and techniques of inventory management.

CO 4. Understanding the types of leverages and different approaches of capital structure.

CO 5. To understand the dividend decisions

Accounting Standard I

CO 1. Identify and describe different types of inter-entity relationships based on relevant Australian Accounting Standards.

CO 2. Discuss and solve accounting issues that arise from inter-entity relationships.

CO 3. Explain the consolidation process and prepare consolidated financial statements based on relevant accounting Standards.

CO 4. Demonstrate the ability to perform complex accounting techniques and methods as required by the relevant accounting standards.

CO 5. Read and analyze consolidated financial statements including accounting policies and other information disclosures.

CO 6. Conduct practical research in the accounting discipline.

Semester VI

Managerial Accounting

CO 1. Critically analyze and provide recommendations to improve the operations of organizations through the application of management accounting techniques;

CO 2. Demonstrate mastery of costing systems, cost management systems, budgeting systems and performance measurement systems

CO 3. Demonstrate the need for a balance between financial and non-financial information in decision making, control and performance evaluation applications of management accounting;

CO 4. Evaluate the costs and benefits of different conventional and contemporary costing systems;

CO 5. Learn independently and to demonstrate high level personal autonomy and accountability;

Company law & Auditing

CO 1. To know the relevant statutory materials, case law and regulatory practice relating to the major topics in Company Law

CO 2. To know the current policy trends and developments in Company Law and of the likely impact of these trends and developments on the major topics in Company Law.

CO 3. Understand how to conduct an opening and closing meeting

CO 4. Be able to create a checklist of questions to ask

CO 5. Have the skills to write an audit report

Taxation II

CO 1. Students will demonstrate understanding of and apply consistently the ethical principles and professional standards related to the profession, including the standards in taking a tax position.

CO 2. Students will also show the ability to express and follow rules of independence exhibiting the highest sense of professional ethics.

CO 3. Students will be able to explain key differences in taxing policies related to expatriates and the countries they live and work in — allowing them to reflect on cultural and ethnic differences in approaches to business and taxation policies

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CO 5. Investigate the detail underlying income statement items

Financial Services-I

CO 1. The course provides a complete package of finance and financial services related subjects so that the students are well equipped with the functional aspects of the various types of financial products and services available in our country

CO 2. Demonstrate broad and coherent knowledge of the theoretical and professional discipline of banking, finance, investment analysis, portfolio management, accountancy

CO 3. Exercise informed commercial judgment within a professional setting which emphasizes

CO 4. ethical and responsible decision making

CO 5. Acquire and synthesis information within a complex professional setting

Retail Marketing

CO 1. Understand what marketing means to business executives and academics

CO 2. Understand the ways that retailers use marketing tools and techniques to interact with their customers.

CO 3. Identify different retailing formats.

CO 4. Analyze consumer evaluations of retail offerings.

CO 5. Conduct an in-depth retailer analysis.

CO 6. Formulate retail marketing strategies.

Department of Electronics

Paper-I: Analog circuits

CO1: Students will get basics and importance of electronics.

CO2: Theory & practicals of Network Theorems.

CO3: Theory & practicals of AC bridges.

CO4: Theory & practicals of RC and RL circuits.

CO5: Block diagram of CRO and its applications.

Paper-II: Electronic devices

CO1: Students will get basics of semiconductors and importance of electronic devices.

CO2: Theory & practicals of Diodes.

CO3: Theory & practicals of Transistors.

CO4: Theory & practicals of FET, UJT and SCR.

CO5: Photo electronic devices and its applications.

Paper-III: Power supply and Analog circuits

CO1: Students will get basics of power supply and importance of amplifiers.

CO2: Theory & practicals of Regulators.

CO3: Theory & practicals of Transistors amplifier.

CO4: Theory & practicals of Feedback amplifier and oscillators.

CO5: Applications of Rectifiers, Amplifiers and oscillators.

Paper-IV: Operational Amplifiers and Communication

Operational Amplifiers, Applications of Op-Amps, Modulation, Amplitude modulation, Frequency modulation.

CO1: Students will get basics of operational amplifiers and their importance.

CO2: Theory & practicals of Operational amplifiers.

CO3: Theory & practicals of Amplitude modulation.

CO4: Theory & practicals of Frequency modulation.

CO5: Applications of Operational amplifiers, Amplitude modulation and Frequency modulation.

Paper-V: Digital Electronics (Elective-I)

CO1: Number system and Logic gates, Logic gates, Boolean algebra and Combinational logic circuits, Sequential logic circuits, Counters and Semiconductor memories, Introduction to 8085 Microprocessor & its architecture, Instruction set of 8085 microprocessors.

Department of English

MA English I Semester

CO 1. The learners are able to understand the importance of The Indo-European family of languages from which English has descended has eight branches including Eastern ones, like Indo-Iranian, Albanian, Armenian and Balto-Slavonic and the Western ones like Greek, Latin, Celtic and Teutonic.

CO 2. The learners came to know that Old English is an old form of the English language that was spoken by the Anglo-Saxons and their descendants in parts of what are now England and south-eastern Scotland between at least the mid-5th century and the mid-12th century.

CO3.Middle English (ME) is collectively the varieties of the English language spoken after the Norman Conquest (1066) until the late 15th century.

CO4. The learners are able to understand Foreign Contribution to the Growth of Vocabulary: Influence of Greek, Latin, French and German on the English language.

CO 5. The learners are trained to what are linguistics (particularly morphology and lexicology), *word formation* refers to the ways in which new words are made on the basis of other words or morphemes.

CO 6. The learners are understood the Noun clauses function as noun phrase complements within
noun phrases.

CO 7. The learners are trained in a **verb phrase (VP)** is a syntactic unit composed of at least one verb and its dependents—objects, complements and other modifiers.

CO 8. The learners are able to differentiate between Coordination and Subordination**.** Coordination is joining two related ideas of equal importance. Subordination **is** joining two related ideas of unequal importance.

CO 9. This may include languages, **dialects**, **registers**, styles or other forms of **language**, as well as **a standard** variety

CO 10. The learners are able to understand Jargon is the vocabulary of a particular group or subculture such as computer geeks, engineers, drug users, and so on. Style is how an individual chooses to express oneself— urban, informal, erudite, wordy, etc. Register is how an individual communicates to fit a particular context or convey a specific mood/feeling.

CO 11. They can see differences between General American and Received Pronunciation for the standard accents in the United States and Britain.

CO 12. The learners are trained to understand how indirect speech focuses more on the content of what someone said rather than their exact words.

CO 13. The learners are able to introduce you to different greetings, introductions, Techniques for getting to know each other, and leaving remarks in English.

c) Knowing how to address your colleagues and your boss to a newly acquired client is vital.

M.A Previous 2013-14

Semester II

Acquisition and Learning.

CO1: To Study the Human Brain and its Functions, Stages of development in a child.

CO2: To Understand Pavlov's Classical conditioning and its implications.

CO3: To Analyze the Cognitivism and Learning Gestalt Theory and its implications in learning and teaching.

CO4: To understand the Difference between First Language Acquisition and Second Language Learning.

CO5: To Evaluate the Models of Second Language Acquisition.

English Language Teaching

CO1: To understand the History of English Language Teaching in India, Macaulay Minute, Three Language Formula, Kothari Commission and Ramamurthy Commission.

CO2: To study the Role of English in India, Identifying Common Learner Errors.

CO3: To develop an in-depth knowledge of various approaches and methods- Direct method, Reading method, Structural Method and Audio-Lingual Method.

CO4: To Develop an overview of Communicative Competence and Linguistic Competence.

CO5: To Evaluate the Silent Way, Total physical response Suggestopedia and Electric Method.

Paper III 20th Century English Literature I

Course Outcomes

CO1: The Background study introduces various concepts like Dada and Surrealism, Stream of Consciousness Technique.

Poetry

CO2: To introduce the major works of the poets of the century 'Easter Coming', 'Byzantium', 'The Waste Land'. Fiction

CO3: To develop an analysis of texts 'sons and Lovers' and 'Heart of Darkness'.

Prose

CO4: To analyze the works 'A Room of One's Own' and 'Art for Art's Sake'.

Drama

CO5: To Evaluate 'Saint Joan', 'Riders to the Sea'.

Paper IV 20th Century English Literature II

CO1: The Background study introduces various concepts like Impressionism, Movement Poetry and

Existentialism.

Poetry

CO2: To Introduce the major works of the poets of the century 'Thought Fox', 'Hawk Roosting', 'Church

Going', 'Digging', 'Punishment'.

Fiction

CO3: To develop an analysis of texts 'Lord of the Flies' and 'Power and the Glory'.

Drama

CO4: To analyze the works – 'Waiting for Godot' and' Indian Ink'.

Short Story

CO5: To Evaluate 'Lamb to the Slaughter', 'The Umbrella Man' and 'Sugar'.

Paper V Indian Writing in English II

CO1: The Background study introduces various concepts like Myth and Literature which helps to understand the text.

Poetry

CO2: To Introduce the major works of the poets of the century 'Enterprise', 'Poet, Lover and

Birdwatcher', An Introduction', The Old Playhouse', 'River' and 'Love Poem for a Wife'

Fiction

CO3: To develop an analysis of 'Midnight's Children' and 'The Binding Vine'.

Drama

CO4: To analyze the works – 'Hayavadana' and 'Final Solutions'.

Short Fiction

CO5: To Evaluate 'A Wife's Story', 'Management of Grief', 'The Accompanist' and 'A Devoted Son'.

M.A Previous Semester II

Paper I Language Learning Theories

First Language Acquisition and Learning.

CO1: To Study the Human Brain and its Functions, Stages of development in a child.

CO2: To understand Pavlov's Classical conditioning and its implications.

CO3: To Analyze the Cognitivism and Learning Gestalt Theory and its implications in learning and teaching

CO4: To understand the Difference between First Language Acquisition and Second Language Learning.

CO5: To Evaluate the Models of Second Language Acquisition.

Paper II English Language and Teaching

English Language Teaching

CO1: To understand the History of English Language Teaching in India, Macaulay Minute, Three Language Formula, Kothari Commission and Ramamurthy Commission.

CO2: To study the Role of English in India, Identifying Common Learner Errors.

CO3: To develop an in-depth knowledge of various approaches and methods- Direct method, Reading method, Structural Method and Audio-Lingual Method

CO4: To Develop an overview of Communicative Competence and Linguistic Competence.

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Consciousness Technique.

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M.A

Semester II

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Birdwatcher', An Introduction', The Old Playhouse', 'River' and 'Love Poem for a Wife'

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Short Fiction

CO5: To Evaluate 'A Wife's Story', 'Management of Grief', The Accompanist' and 'A Devoted Son'.

M.A

Semester II

Paper II English Prose

CO1: Origin and Development of English Essay, Utopia, Allegory, Satire and Translation of Bible

CO2: To understand the development of 'Of Studies', 'Of Truth', 'An Apologie for Poetry and 'The Pilgrims Progress.

CO3: To Analyze the Addison's 'Sir Roger in Church', Swift's 'The Battle of Books' and 'Preface to

Shakespeare.

CO4: An Overview of Lamb's Essays, Hazlitt's The Indian Jugglers' 'On People with One Idea'

CO5: To get a Glimpse of Bertrand Russell's The Ethics of War', 'Education and Discipline', George

Orwell's 'Politics and the English Language', 'Reflections on Gandhi'.

Paper III English Fiction

CO1: To Study 'The Rise of the Novel', Naturalism and Stream of Consciousness.

CO2: A Critical Study of 'Robinson Crusoe' 'Emma' and' Jane Eyre'.

CO3: To Analyze 'Hard times', 'Tess of the Urbervilles', and' Heart of Darkness'.

CO4: The Analysis of 'sons and Lovers', 'Lord of the Flies' and 'White Teeth'.

CO5: To Evaluate the short stories of 'Thrown Away', 'The Man Who Could Work Miracles' and 'Lamb to the Slaughter'.

Paper IV Women's writing

CO1: To Study Sex and Gender, Women's Liberation Movement, Women and the Canon, Black Feminist criticism.

Poetry

CO2: To Understand the Poetry: 'Eve's Apology in Defense of Women', 'Lady Lazarus', ' Daddy',

'waterpot', 'The Fat Black Woman Goes Shopping' and 'Raisin eyes.

Fiction

CO3: To Develop Feminist View Point through Toni Morrison, Jean Rhys, Chimamanda Adichie.

Prose

CO4: Feminism and Women Studies through 'Vindication of the Rights of Women' and 'From Feminist Fables'.

Paper V Twentieth Century Literary Criticism and Theory

Background, Literary theory and Criticism

CO1: An Introduction to Literary Theory, Psychoanalytical Criticism and Principles of Criticism.

CO2: To Analyze 'The Language of Paradox' and 'the Archetypes of Literature'.

CO3: To critically analyze 'The Unities of Discourse', 'The Death of the Author 'and 'Literature'

CO4: To Evaluate 'Feminist Criticism in Wilderness' and Writing 'Race'.

M.A Semester II

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Semester III

Paper-1: **The English Language: History, Description and Practice**

CO1. This paper introduces to the learners the various types of Indo-European languages and the characteristic features of Old, Middle and Modern English.

CO 2. It focusses on different processes involved in word formation and the contribution of foreign languages to the growth of vocabulary in English language.

CO 3. It exposes the learner to the types of simple sentences and semantic implications of co-ordination and sub-ordination.

CO 4. It emphasizes on learning the standard dialect, register and style.

CO 5. It trains the learner to use reporting verbs, degrees of comparison and master in using English in authentic situations.

Paper-4: English language and Phonetics

CO 1. The paper focusses on the features of human communication and its types.

CO 2. It emphasizes on phonetics that includes organs of speech, classification of sounds and description of consonants and vowel sounds of consonants and vowel sounds.

CO 3. It focusses on word stress, aspects of connected speech and tones of intonation which help the learn to improve his/her pronunciation.

CO 4. The paper attempts a detailed study of the levels of language description: phonology, morphology and syntax.

Semester-2

Paper-1: English Language Teaching: History, Approaches and Methods

CO 1. This paper provides the knowledge about how English was introduced in India and the role played by English in pre and post- independent India.

CO 2. It focusses on the theories of English language learning: Behaviourism and Cognitivism.

CO 3. It focusses on both the approaches and methods of language teaching.

CO 4. It provides an in-depth analysis of LSRW and their sub-skills.

CO 5. It also provides an elaborated explanation of goals and objectives of curriculum and types of syllabi.

CO 6. It also focusses on various types of testing.

Semester-3

Paper-1: English Language Teaching: Classroom Techniques and Practical English

CO 1. The paper helps the learner to deal effectively with error analysis theory and the techniques of teaching grammar, poetry, prose, drama and vocabulary.

CO 2. It mainly focusses on learner centred approach and expose the learner to the concepts of team teaching and teaching large classes.

CO 3. It emphasizes on effective use of teaching aids and the importance of language lab in acquiring L2.

CO 4. It focusses on teaching language through literature and the stylistic approach to the teaching of literature.

CO 5. It provides a platform for the learners to learn how to communicate effectively through letters, memos, notices, etc.

CO 6. It also focusses on essentials of presentation skills, mock interviews, GD's, etc.

Semester-4

Paper-1: English Language Teaching: Major Developments in L1 and L2

CO 1. This paper gives a detailed account of the human brain and its function in language acquisition and learning.

CO 2. This paper focusses on the major findings of L2 research and the models of L2 acquisition.

CO 3. It provides a brief description of types of language learning strategies and the different learning styles of the learners.

CO 4. It focusses on the importance of socio-linguistics, concept of post method pedagogy, World Englishes and New Englishes.

CO 5. It briefly mentions the principles of designing ESP courses.

CO 6. It provides the steps to design a standard test and also study the samples of competitive tests like TOEFL and IELTS.

Paper-4: Academic Writing and Research Methodology

CO 1. This paper focusses on various factors that influence the effective writing.

CO 2. It emphasizes on study skills and academic skills like note taking, note making, paraphrasing, summarizing, essay writing, report writing, writing book reviews, film reviews.

CO 3. It gives an in-depth knowledge on types of research and how to analyse and interpret the collected data.

CO 4. It exposes the learner to the two formats of documentation- APA and MLA styles.

Advanced skills in II year.

UG - B.A. (ML) Programme Outcome

CO1: Language and Literature I (Indian Literature in English)

This paper introduces to the learner both the aspects of English: Literature and Language. The focus of language as a means of communication emphasizes on both verbal and non verbal communication.

CO2: An in-depth analysis and learning is initiated into the four language skills Listening, Speaking, Reading and Writing. The learners also learn about varieties of English with reference to the unique variation of Indian English.

CO3: The learner with an understanding of the elements of poetry and drama with an introduction into literary terminology, a student of literature should be thorough with.

CO4: The learner will now be able to understand and appreciate higher order of language skills that are demonstrated in these genres.

CO5: They also sample Indian writers and their work exploring the concept of literature within their context

II Semester

Paper II – Language and Literature II (British Literature of 20th Century)

CO1: This paper delves deeper into the phonology of English with a study on vowels and consonants and other components of language such as stress, syllable, word accent and contractions.

CO2: It also trains the learner in listening, conversations and the power of positive markers in language. It further introduces definitions and major influences on literature such as Marxism, Modernism, Post Modernism and Feminism.

III Semester

Paper III – Language and Literature III (British Literature of 19th Century)

CO 1: As the learner proceeds to the next semester, he/she learns higher language skills and older concepts of literature than the earlier semester. Language and Communication is part of the impetus. Reading comprehension and Basics of writing help the learner comprehend the concepts of 'organisation', 'expansion', 'abridgement' and 'creative writing'

IV Semester

Paper IV – Language and Literature IV (British Literature of 18th Century)

CO 1: After three semesters of language and literature, this semester enables the student equip themselves with the aspects related to effective academic writing by exposing them to ideas related to documentation. Further, the students are given an idea of 18th century British literature, restoration drama, neo-classical age and a glimpse of the development of the novel and various kinds of novel.

V Semester

Paper V – Language and Literature V (British Literature of 16th& 17th Centuries)

CO 1: By the end of the Fifth semester, students would be familiar with aspects of writers and a few writings of Renaissance and University wits, Elizabethan age and Metaphysical age. Works of William Shakespeare, John Donne, John Milton and Francis Bacon. The unit of seminar and presentation skills should hone their speaking skills and equip them for effective presentations.

Paper VI- Elective –A: American Literature

CO1: After four semesters of exposure to British literature, the students who opt for American literature will get an idea of American literature. At the end of the semester, students would come out with movements and phases, and the struggles of America: slavery, racism, discrimination, American dream and individualism as reflected in works of Phyllis Wheatley, Mark Twain, Walt Whitman and H.D Thoreau

Elective- B: Post-Colonial Literature

CO1: After four semesters of exposure to British literature, the students who opt for American literature will be now introduced to Post-Colonial Literature. At the end of the course, the students should be familiar with concepts and ideas related to: Imperialism, Colonialism, Post colonialism, Diaspora and literature of Carribean, Australian and Nigerian writers such as: Edward Braithwaite, Judith Wright, Ngugi WaThiango, Wole Soyinka and Chinua Achebe.

UG - B.A. (ML) Course Outcome – VI Semester

Paper VII – Literary Appreciation and Criticism

CO1: At the end of the semester, students will be gaining knowledge of the tools of critical analysis to analyze poetry, fiction, drama, and prose. Students will be also aware of concepts such as neo-criticism, feminism and Psychoanalysis. This paper also familiarizes them with the genre of film as literature and helps them understand the techniques of film making and the issues of the genre.

UG - B.A. (ML) Course Outcome – VI Semester

Paper VIII – Project Work

CO1: After the seven semesters of studying literature and learning about academic writing and documentation, the students are able to take up some kind of research work as submit as a project. The students are given a choice of their topics from the works and writers they have studied earlier.

Department of Economics

MACRO ECONOMICS (M.A PREVIOUS- PAPER-II SEM- I& II)

CO1: Macroeconomics helps us to understand how a economy is moving as a whole. It is useful in multiple ways to multiple parties.

CO2: In Macroeconomics, a variety of economy –wide phenomena is thoroughly examined such as inflation, price levels, rate of growth, national income, gross domestic product and changes in unemployment.

CO3: Private companies decide the investment area depending on macroeconomics data like inflation or sector growth.

CO4: It helps us understand the functioning of a complicated modern economic system**.**

CO5: It helps to achieve the goal of economic growth, a higher GDP level, and higher level of employment.

CO6: It helps to bring stability in price level and analysis fluctuations in business activities.

GROWTH & DEVELOPMENT ECONOMICS (M.A FINAL- PAPER-II – SEM-III)

CO1: This enables consumers to enjoy more goods and services and enjoy better standards of living.

CO2: With higher output and positive economic growth, firms tend to employ more workers creating more employment.

CO3: Economic growth creates higher tax revenues and there is less need to spend money on benefits such as unemployment benefit. Therefore, economic growth helps to reduce government borrowing.

CO4: With increased tax revenues the government can spend more on public services such as the NHS education etc.

ENVIRONMENT ECONOMICS (M.A FINAL- PAPER-III- SEM IV)

CO1: Environmental economics will help us understand some important and controversial issues such as climate change policy, nuclear power, recycling policy and traffic congestion charging.

CO2: This is an exciting field of economics to study and very much at the heart of many public debates and controversies.

CO3: Under takes theoretical or empirical studies of the economic effects of national or local environmental policies around the world. Particular issues include the costs and benefits of alternative environmental policies to deal with air pollution, water quality, toxic substances, solid waste and global warming.

INDUSTRIAL ECONOMICS (M.A FINAL- PAPER-IV- SEM- IV)

CO1: Industrial Economics is the study of firms, industries, and markets. It looks at firms of all sizes – from local corner shops to multinational giants such as WalMart or Tesco. And it considers a whole range of industries, such as electricity generation, car production, and restaurants.

When analysing decision making at the levels of the individual firm and industry, Industrial Economics helps us understand such issues as:

1.The levels at which capacity, output, and prices are set;

2.The extent that products are differentiated from each other;

3.How much firms invest in research and development (R&D)

4.How and why firms advertise

CO2: Industrial Economics also gives insights into how firms organise their activities, as well as considering their motivation. In many micro courses, profit maximisation is taken as given, but many industrial economics courses examine alternative objectives, such as trying to grow market share.

There is also an international dimension – firms have the option to source inputs (or outsource production) overseas. As such, while industrial economics more frequently uses skills and knowledge from micro courses, macroeconomic concepts are sometimes employed

Department of Environmental Science

CO1: Students will be able to understand the composition of Environment.

CO2: Students gain knowledge about the areas and aspects covered under Environmental Science.

CO3: The science of Environment studies comprises various branches of studies like chemistry, physics, life science, medical science, agriculture, public health, sanitary engineering, geography, geology, atmospheric science, etc. It is the science of physical phenomena in the environment. Students acquire knowledge about composition of Environment.

CO4: Students will get a clear understanding of environmental concerns and indicates the necessity to follow sustainable development practices. It will also help to stimulate them to develop their ability to apply their knowledge and adopt a standpoint on environmental issues.

CO5: It helps students to establish a standard for a safe, clean and healthy natural ecosystem. It also deals with important issues like safe and clean drinking water, hygienic living conditions and clean and fresh air, fertility of land, healthy food and development.

CO6: By including environmental studies, students will be able to associate their core subjects to the direct or indirect impact it has on the environment. Educating students on environment should result in them being more aware and sensitive towards the world we live in.

CO7: Students will have an insight about structure and functions of ecosystem.

CO8: Students acquire knowledge about natural resources, their importance and their conservation.

CO9: Students get an opportunity to learn about different types of pollution and methods to control pollution.

CO10: Students will learn about climate change, global warming, acid rain, ozone layer depletion, Air Act, Water Act, Wildlife Protection Act, Environmental Protection Act and Social Forestry.

Department of Geography

Geotectonics and Geomorphology

CO 1 – Explaining the Fundamentals of Geotectonics and Geomorphology

CO 2 - Understanding crustal mobility and tectonics; with special emphasis on their role in landform development

CO 3 – Establishing the relationships between landforms, processes and underlying structure

CO 4 – Overview and critical appraisal of landform development models

Hydrology and Oceanography

CO 1 – Describing and analyzing the concepts of Hydrology and Oceanography

CO 2 – Understanding the variations of global hydrological cycle

CO 3 - Emphasizing the significance of groundwater quality and its circulation

CO 4 – Studying the behavior and characteristics of the global oceans

Economic Geography

CO 1 - Understanding the fundamental principles of Economic Geography

CO 2 – Assessing the importance of economic activities around the world

CO 3 – Discussing the locational factors for development of industries

Climatology Soil and Biogeography

CO 1 - Understanding the dynamics of the Earth's atmosphere and global climate

CO 2 - Explaining approaches to climate classification.

CO 3 - Assessing the role of man in global climate change

CO 4 - Explaining the Pedological and Edaphological Approaches to Soil Studies

CO 5 - Discussing processes of soil formation, types of soil, and principles of soil and land classification; and management.

CO 6 - Introducing ecosystem and biosphere concepts

CO 7 - Analyzing the importance and role of biogeochemical cycles

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Social, Cultural and Political Geography

CO 1 - Explaining the concept and dynamics of human society.

CO 2 – Highlighting the emerging social patterns and contemporary principles of social ecology

CO 3 - Highlighting different cultural ethos, social and political milieu found in India

CO 4 - Analyzing the unity in the vast cultural background of India

CO 3 – Establishing the correlations between man and his natural and cultural landscape

CO 4 – Analyzing different political ideologies

CO 5 – Emphasizing the significance of different political systems

Population Settlement and Regional Geography

CO 1 – Identifying habitable parts of the world and different global population dynamics

CO 2 – Explaining the correlation between man and man-made structures on the natural Landscape

CO 3 – Analyzing the concept of regions and regionalization.

CO 4 – Understanding the detailed geography of India

CO 5 – Studying typical physiographic, planning, arid and biotic regions of India

CO 6 – Describing and analyzing the problems and consequences of unreliable rainfall, soil salinity, urban slums and SEZ delineation

Philosophy of Geography

CO 1 – Discussing the evolution of geographical thought from ancient to modern times

CO 2 – Establishing relationship of Geography with other disciplines and man-environment Relationships

CO 3 - Analyzing modern and contemporary principles of Empiricism, Positivism,

Structuralism, Human and Behavioural Approaches in Geography

Contemporary Issues in Geography

CO 1 – Assessing the nature, impact and management of major natural and man-made hazards affecting the Indian subcontinent

CO 2 – Understanding fundamental concepts of hazards, disasters, and their management

CO 3 – Analyzing the impacts of globalization, economic disparity, poverty and unemployment across global economies

CO 4 - Studying the indicators of economic development

Practical Techniques in Geography

CO 1 – Interpreting, reading, analyzing and identifying features from Geological and Topographical Maps

CO 2 - Constructing scales and representing geographical data through Cartograms

CO 3 - Identifying rocks and minerals and listing their properties

CO 4 - Determining the area, the height and making of the plan of the land using dumpy level and prismatic compass in the field survey

CO 5 – Drawing of maps with the help of map projections

CO 6 – Using statistical techniques in order to summarize, represent, analyze and interpret data

CO 7 - Training in the use Geographic Information System (GIS) softwares for contemporary mapping skills

CO 8 – Analyzing and interpreting remotely sensed satellite images and aerial photographs in order to understand topographical and cultural variations on the Earth's surface.

CO 9 – Conducting field excursions and preparation of field report on research on problem in different areas of India.

Department of Genetics

Paper 1 -Transmission genetics

CO1: Understand the concept of inheritance.

CO2: Understand types of interactions between genes and environment.

CO3: Understand the concept of recombination and variations.

CO4: Develops the problem-solving ability based on probability.

Paper 2-Molecular genetics and genetic engineering

CO1: Understand the molecular aspects of inheritance in prokaryotes and eukaryotes.

CO2: Understand molecular biology aspect of genes and their expression and regulation.

CO3: It provides the knowledge for applications of molecular biology tools in genetics engineering.

CO4: Develop skills in entrepreneurship.

Paper 3-Biostatistics and Bioinformatics

CO1: To learn the basis of significance of biostatistical concepts in genetics.

CO2: To handle statistical applications in the study of genetics.

CO3: To create building research methodology

CO4: To Understand bioinformatics basics to know the significance of databases and its applications.

Paper 4-population genetics and evolution.

CO1: To understand concepts of finding out the frequency of lethal genes in the population and evolutionary aspects of the population.

CO2: To understand significance of genes in population and the concept of evolution.

CO3: To understand the reason behind the selection of mutations.

CO4: To understand the significance of selections in the population which leads to variations.

Paper 5- Elective 1-Animal genetics and Biotechnology

CO1: To understand the significance of live stocks in the study of genetics, their improvement and maintenance.

CO2: The study also provides the knowledge of using live stock as models of genetic studies and their role in biotechnology.

CO3: To inculcates the scientific attitude in the students and encourage entrepreneurship.

CO4: ensure the production of economically important products based on the concept of genetic engineering and animal breeding.

Paper 5 Core -Biostatistics and Population Genetics

CO1: To learn the basis of significance of biostatistical concepts in genetics

CO2: To handle statistical applications in the study of genetics

CO3: To understand concepts of finding out the frequency of lethal genes in the population and evolutionary aspects of the population

CO4: To understand significance of genes in population and the concept of evolution

Paper 6 elective 1- Human genetics

CO1: This course provides the insight of human genome, human genome projects and its applications.

CO2: It also provides the knowledge of various genetic disorders, prevention and cure.

CO3: This course enables knowledge of clinical genetics aspects and signifies the cause of genetic disorders and recent advances in detecting the various disorders, diagnosis and therapeutics.

CO4: The course contains information related to the genetic aspects of diseases like cancer and blood disorders.

CO5: The molecular aspects of genetics behind these disorders makes the students develop various strategies to combat with these disorders.

Paper 6 elective 2-Breeding and Genome Evolution

CO1: This course provides the basic principle of breeding to improve livestock and crop varieties.

CO2: It helps in improving varieties of crop plants and livestock based on the principles of genetics.

CO3: To understand the concept of genome evolution.

CO4: Thus, making understand the significance of evolution and population variation.

Paper 7 Core-Genome analysis and genetic engineering

Advanced techniques in Genome analysis: Gene transfer techniques: Genetic engineering of plants and animals

CO1: This course involves the advanced techniques in molecular biology.

CO2: Thus, making the students to learn different techniques utilized in genome analysis and recombinant DNA technology.

CO3: It fulfills the requirement of production of transgenic plants and animals.

CO4: It provides significance of productivity improvement according to the market requirements.

Medical Genetics

Cancer Genetics; Immuno Genetics; Hemoglobinopathies and pharmacogenomics

CO1: This course information related to the genetic aspects of diseases like cancer and blood disorders.

CO2: The molecular aspects of genetics behind these disorders makes the students develop various strategies to combat with these disorders.

CO3: Development of vaccines and various immunological techniques involved in diagnosis of diseases and different techniques utilized in genome analysis.

CO4: Thus, inculcating research strategies and helping them in curing and preventing genetic disorders.

Plant Genetics and Biotechnology

Plant Genetics; Introduction to plant tissue culture; Methods in Plant Tissue Culture.

CO1: This course involves the application part of genetics dealing with biotechnological aspects.

CO2: The plant genetics and tissue culture techniques are discussed.

CO3: These aspects ensure the production of economically important crop plants on vegetative mode in a less time duration compared to the conventional method to meet the requirements of the society.

CO4: It fulfils the requirement of knowledge of genetics in understanding the various techniques for producing medicinally important compounds.

Department of History (UG)

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History of India (From the earliest times to 700 CE)

CO1: By studying this course, the student can understand the human evaluations like the transformations occurred right from Indus valley civilization times to 7th century A.D.

CO2: Identify and define various kinds of sources and understand how evidences are notified.

CO3: Compare and contrast various stages of progress from Indus valley civilization to Vedic age and analyze the Jain, Buddhist and Vedic faiths.

CO4: Increase the awareness of transition from territorial states to emergence of empires. Analyze the emergence of the Mauryan, Gupta and Harshavardhan empires during the "Classical age" in India.

CO5: Critically examine the nature of monarchic rule and develop a comprehensive understanding of cultural evolution during ancient period.

History of India (700 CE - 1526 CE)

CO1: By studying this course, the student can understand the Rise of Regional States: North and south.

CO2: Arab Conquest of Sind, Ghaznavids and Ghoris- Invasions.

CO3: Bhakti and Sufi Movements and its impact.

CO4: Kakatiyas and their significance in south India.

CO5: Vijayanagara and Bahamanis Kingdoms—and their Contribution to the Deccan Culture.

History of India (1526-1857 CE)

CO1: By studying this course, students identify Establishment of Mughal Dynasty

CO2: Rise of Regional Powers Marathas, Hyderabad -Avadh - Junagarh -Mysore – Kashmir.

CO3: By studying this paper, students identify Europeans arrival, the disintegrations among the kings and the weakness of fleet etc. that led the British invasions on India and finally occupying political power in this country.

CO4: Three Stages of Colonialism and its impact on India

CO5: Decline of Rural Cottage Industries and Urban Handicrafts - Growth of Railways, Roads, Communication

Historical and Cultural Tourism Skill Enhancement Course (SEC)

CO1: The students will know the importance of historical tourism and types of tourism. It helps build image, it helps preserve the cultural and historical heritage, with culture as an instrument it facilities harmony and understanding among people.

CO2: By studying this paper, the students will know the tourist spots, handicrafts and cultural instruments; their history and importance. The students will know the primary purpose of exploring history and heritage of place.

History of India (1858-1964 CE)

CO1: By studying this course, students understand Queen's Proclamation-Beginning of Colonial Rule in India

CO2: Socio-Religions Reform Movements in India and its impact on society.

CO3: By studying this paper, students identify Rise of Nationalism in India and the roile of Indian national congress in freedom struggle.

CO4: Revolutionary Movement, Peasant and Workers Movements in India

CO5: Emergence of Communal Politics and partition of India.

Introduction to Archaeology; Skill Enhancement Course (SEC)

CO1: This course examines the significance of in retrieving the human part and its development as an important discipline in India.

CO2: This course equips the students with techniques of Identifying an archaeological site, its excavation, documentation and conservation methods.

History of Modern World (From 1453 CE to 1848 CE)

CO1: By studying this course, students understand Dawn of New Age-Geographical Discoveries- Renaissance- Impact

CO2: Rise of Nation States in Europe: England, France, Spain, Portugal.

CO3: By studying this paper, students learn The Glorious Revolution and Era of Enlightened Despotism in Europe.

CO4: Age of Revolutions- American Revolution and French Revolution

CO5: 1830 and 1848 Revolutions in France

History and Culture of Telangana (From earliest times to 1724 CE)

CO1: By studying this course, students understand Geographical features of Telangana

CO2: Student understand about Satavahanas , Ikshvakus, Vishnukundins, Badami Chalukyas, Rashtrakutas, Vemulavada Chalukyas, Mudigonda Chalukyas and Western Chalukyas.

CO3: By studying this paper, students learn about Kakatiyas- Velamas, Padmanayakas

CO4: The Qutub Shahis-

CO5: Aurangazeb's invasion on Golconda kingdom and Political turmoil-Sarvai Papaiah &Balamoori Kondala Rao.

Indian National Movement (1857 CE-1947 CE) GE - Generic Elective

CO1: By studying this course, students understand 1857 Revolt – Causes- Consequences.

CO2: Student understand about Process of Indian National Congress and its activities.

CO3: By studying this paper, students learn Gandhi and his contribution to Indian freedom movement.

CO4: Peasant and Tribal Movements and Emergence of Independent India.

History of Modern World (1848 CE-1950 CE)

CO1: By studying this course, students understand Impact of 1830 and 1848 Revolutions and Unification of Italy and Germany

CO2: Student understand about Rise of Socialist and Marxist Ideas and First World War.
CO3: By studying this paper, students learn League of Nations--Russian and Chinese Revolution

CO4: Rise of Fascism and Nazism-Second World War- and U.N.O-
CO5: National and Liberation Movements in Asia and Africa.

History and Culture of Telangana (1724 CE to 2014 CE) (DSE)

CO1: By studying this course, students understand The Nizams of Hyderabad state and Revolt of 1857.

CO2: Student understand about Process of Modernization in Hyderabad State and sir Salarjung reforms.

CO3: By studying this paper, students learn Public Awakening in Hyderabad State and rise of Political Consciousness

CO4: Cultural Awakening in Telangana
CO5: Political Awakening in Telangana and Emergence of Separate Telangana State.

Department of History (P.G) M. A. History

History of India: From Earliest times to 1206 CE

CO1: Students are able to understand the genesis of history and development of history writing in different country as well as in India.

CO2: Identify and define various kinds of sources and understand how evidences are notified.

CO3: Compare and contrast various stages of progress from Indus valley civilization to Vedic age and analyze the Jain, Buddhist and Vedic faiths.•

CO4: Increase the awareness of transition from territorial states to emergence of empires.

CO5: Analyze the emergence of the Alexander, Mauryan and Gupta empires during the "Classical age" in India.

World History: 1453-1871 CE

CO 1: Student learn about the history of Constantinople 1453

CO 2: Student learn about the history of rise of national state in Europe.

CO 3: Student learn about the history of colonialism in the 18th Century.

CO 4: Student learns about the industrial revaluation.

History and Culture of Telangana: From Earliest Times to 1724 CE

CO1: Student learn about the Archeological and literary sources of Telangana

CO2: Student learn about the history of Shatavahanas, Ikshvakus etc.,

CO3: student learn about the history of Chalukyasbadami, Rastakutas, Vemulavada chanukyans etc.

CO 4: student learn about the history of Kakatiyas.

CO 5: student learn about the history of Kutubshaihis of golkona.

Course History of Ancient Civilizations

CO 1: student learn about the history of Ancient Civilizations like Mesopotamia

CO 2: student learns about the history of Ancient Civilizations like Egypt.

CO 3 : student learn about the history of Ancient Civilizations like Greece, Roman.

CO 4: student learns about the history of Ancient Civilizations like Indus, China.

Tourism and Culture

CO 1: student learn about the Tourism & Culture

CO 2: Students learn about the Travel and Tourism through the Ages.

CO 3: Students learn about the Social, Economic, Ecological and Cultural Impact on Tourism.

CO 4: student learn about the Types of Tourism.

History of India: 1206-1858 CE

CO1: student learn about the Foundation of the Delhi Sultanate

CO 2: student learns about the history of Deccan Kingdoms - The Hoysalas, Pandyas, Yadavas, Kakatiyas.

CO 3: student learns about the history of The Mughals.

CO 4: student learns about the Advent of European Trading Companies in India.

CO5: student learns about the history of Social and Economic Policies of English East India Company.

Paper II – Historiography and Historical Method

CO 1: student learn about the Introduction of Historiography

CO 2: student learn about the history of Ancient Historiography

CO 3: student learn about the history of Modern Historiography- Western.

CO 4: student learns about the history of Modern Historiography- Marxist and Subaltern Schools.

CO 5: student learns about the Historical methodology.

History of Telangana: From 1724-2014 CE

CO 1: student learn about the Asaf Jahi Dynasty

CO 2: student learn about the history of The Rule of Mir Osman Ali Khan

CO 3: student learn about the history of The Role of Andhra Maha Sabha.

CO 4: student learn about the history of Modern Anti-Nizam and Anti-Feudal Movements.

CO 5: student learn about the Discrimination, Dissent and Protest movements in Telangana for separate state.

History of Modern World: 1871-1964 CE

CO 1: student learn about the Rise of Imperialism and Rivalry among the Colonial Powers

CO 2: student learn about the history of Formation of Alliances - Causes and Consequences

CO 3: student learns about the history of Europe between Two World Wars.

CO 4: student learns about the history of National Liberation Movements in Asia and Africa.

Environmental History of Modern India

CO 1: student learns about the Environmental History.

CO 2: student learns about the Colonialism and Exploitation of Natural Resources.

CO 3: student learns about the history of Colonial Policies on Land Alienation.

CO 4: student learns about the history of Emergence of Environmental Movements in India.

Social, Economic and Cultural History of Medieval India: 1206-1707 CE

CO1: student learn about the Sources for the Study of Social, Economic and Cultural History

CO 2: student learn about the history of Society in Medieval India

CO 3: student learns about the history of Cultural Developments in Medieval India.

CO 4: student learns about the history of Economic Developments in Medieval India.

CO 5: student learns about the Trade and Commerce in Medieval India.

Social And Economic History of Modern India: 1707-1947 CE

CO 1: student learn about the Social and Economic History

CO 2: student learn about the history of Socio-Religious and Cultural Reform Movement in India 19th and 20th Centuries

CO 3: student learns about the history of Role of Social Reformers in Emancipation of Women.

CO 4: student learns about the history of Stages of Colonialism.

CO 5: student learns about the Growth of Transport & Communication.

History if Dalit Movements in India: 1900-1947 CE

CO1: student learn about The Concept of Dalit

CO2: student learn about the history of Caste System in India

CO 3: student learn about the history of Anti-Caste Movements in Colonial India.

CO 4: student learn about the history of Caste Reform Movements.

CO 5: student learn about the Caste Annihilation Movement in India.

History of Science and Technology in Modern India: 1800-1964 CE

CO 1: student learn about the introduction of Science and Technology

CO 2: student learn about the history of Modernization of Agriculture under the British Rule in India

CO 3: student learns about the history of History of Growth of Scientific and Technical Education in India.

CO 4: student learns about the History of Colonial Medicine in India.

Cultural History of India (Inter Disciplinary)

CO 1: student learn about the introduction of Indian Culture

CO 2: student learn about the Religion and Philosophy – Ancient India

CO 3: student learn about the Indian Painting – Performing Arts in India.

CO 4: student learn about the Development of Science & Technology in India.

National Movement in India: 1858-1947 CE

CO1: student learn about the introduction of Nationalism

CO 2: student learn about the history of Emergence of Gandhi

CO 3: student learn about the history of Revolutionary Terrorism in India.

CO 4: student learn about the history of Growth of Communal Politics.

CO 5: student learn about the Freedom Struggle in Princely States in India.

History of Contemporary India: 1947-2000 CE

CO 1: student learn about the Colonial Legacy - National Movement

CO 2: student learn about the history of Consolidation of India as a Nation

CO 3: student learns about the history of Democracy, Secularism and Nation State in India.

CO 4: student learns about the history of Land Question and Indian Peasantry.

CO 5: student learns about the Caste and Communalism in Indian Politics.

Tribal And Peasant Movements in India, 19th& 20th Centuries

CO 1: student learn about the introduction of Tribal & Peasant Movements

CO 2: student learn about the history of Tribal Uprisings (Central, North India and Andhra)

CO 3: student learn about the history of Peasant Movements in British India in 19th Century.

CO 4: student learn about the history of Peasant Movements in 20th Century.

CO 5: student learn about the Integration of Peasantry into the Nationalist Movement in India

Constitutional History of India: 1773-1947 CE

CO1: student learn about the Constitutional Developments 1773-1919

CO 2: student learn about the history of Constitutional Development from 1919 to 1935

CO 3: student learns about the history of Government of India Act, 1935.

CO 4: student learn about the history of Growth of Central and Provincial Legislatures.

Women Studies in Modern India

CO1: Student learns about the Historiography of women studies in India.

CO 2: student learn about the history of Women and Social Reform Movements in Colonial India

CO 3: student learn about the Women in Liberation Movements in India.

CO 4: student learn about the history of Women & Nationalism in India.

Marketing Communication

CO1: Explaining Basic concepts of marketing (production concepts, product concept, societal concept, marketing concept, market concept), Origin of marketing

CO2: Elaborating the Marketing Vs Market, Marketing Mix (4pc's product, price, promotion, physical distribution.), marketing Strategy distribution.) , marketing Strategy

CO3: Highlighting the Marketing environment in brief (Internal environment- Company, suppliers, marketing intermediates)

CO4: Describe the Internal environment – middlemen, agent middlemen, merchant middlemen, financial intermediates, customers, competitors, public, internal public.

CO5: Explaining the External environment- Economic environment, unemployment, agricultural, percapita income, pattern of savings and expenditure, price level change, impact of govt policies.

CO6: Describing the External environment - Industrial conditions, supply conditions, demography conditions, social and cultural environment, consumerism.

CO7: Marketing strategy, its applications and usages in brief, Functions of marketing, scope of marketing, Characteristics of marketing.

Communication

CO1: Highlighting the General communication – nature of communication, Objectives of

Communication – communication process (sender, encoding, message, decoding, receive,

feedback).

CO2: Explaining the Importance of communication (for all the fields), Barriers of communication (semantic barriers, physical barriers, psychological barriers)

CO3: Elaborating the Steps in developing effective marketing communication, Inter-personnel

Communication Vs Intra personnel communication.

Overview of Marketing Communication

CO1: Highlighting Overview of Marketing communication: Marketing communication, why we need marketing communication.

CO2: Explaining the Role and importance of marketing communication, Elements in marketing Communication.

CO3: Highlighting the Process of marketing communication, Limitations of marketing communication.

Types of Communication

CO1: Elaborating the Types of communication- Vertical communication (Downward, upward), Horizontal communication. CO1: Explaining the concept of Advertising, Marketing Characteristics.

CO2: Elaborating the Origin and Growth of advertising, Objectives of advertising.

CO3: Highlighting the differences between Advertising Vs. Marketing, Advertising Vs. Communication.

CO4: Describe the Importance of advertising in Modern marketing.

Types of advertising

CO1: Explaining the Types of advertising- Commercial, Non-Commercial, Institution.

CO2: Describing the National & Local, comparative, Co-operative, Classified and Display, Persuasive types of advertising.

CO3: Highlighting the Consumer & Industrial advertising, Primary & Selective demand advertising.

Role of Advertising in Global Marketing

CO1: Explaining the Role of advertising in the Global Marketing, Scope of Advertising.

CO2: Highlighting the Functions of Advertising, Advertising vs. Marketing.

Advertising plan

CO1: Explaining the Introduction to Advertising Strategy, the terms- Campaign, Campaign Planning, Basis of Campaign planning.

CO2: Elaborating the Phase of campaign planning, Advertising Agency Features, Function, Structure.

CO3: Describing the Function, Structure of ad agency.

Advertising Budget

CO1: Explaining the Introduction to advertising budget, Steps involved in preparing budget.

CO2: Highlighting the Methods involved in framing, Factors affecting the advertising expenditure in company.

CO3: Describing the Features of Advertising budget, Functions of advertising budget.

CO4: Explaining the Grapevine communication, Consensus communication, Limitations.

CO5: Highlighting the Inter personal communication, Formal and informal communication.

Media for marketing communication

CO1: Explaining the Overview of media, Introduction to media, Media analysis.

CO2: Highlighting the Integrated communication in marketing, Rural Marketing Vs. Urban Marketing.

CO3: Elaborating the Contemporary Issues in marketing.

Advertising

CO1: Explaining the concept of Advertising, Marketing Characteristics.

CO2: Elaborating the Origin and Growth of advertising, Objectives of advertising.

CO3: Highlighting the differences between Advertising Vs. Marketing, Advertising Vs. Communication.

CO4: Describe the Importance of advertising in Modern marketing.

Types of advertising

CO1: Explaining the Types of advertising- Commercial, Non-Commercial, Institution.

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Advertising plan

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CO2: Elaborating the Phase of campaign planning, Advertising Agency Features, Function, Structure.

CO3: Describing the Function, Structure of ad agency.

Advertising Budget

CO1: Explaining the Introduction to advertising budget, Steps involved in preparing budget.

CO2: Highlighting the Methods involved in framing, Factors effecting the advertising expenditure in company.

CO3: Describing the Features of Advertising budget, Functions of advertising budget.

Ad Agency

CO1: Explaining the Introduction to ad agency, History of ad agency.

CO2: Describing the Functions of ad agency, Features of ad agency.

CO3: Elaborating the Role and Importance in advertising, Structure of ad agency.

CO4: Highlighting the Selection of an ad agency.

Advertising Media

CO1: Explaining the Advertising Media: Meaning – Classification of ad-media.

CO2: Describing the Indoor media (Newspaper, Magazines, Radio, TV. Cinema, Video), Outdoor media (Poster, Displays, Electronic Signboards, Travelling Displays, Sandwich men etc.).

CO3: Highlighting the Display media (Postcard, envelop enclosure, booklet, Catalogues- Sales letter, Widow Display, Country Display (interior Decoration), Show Room – Exhibitions, Show Cases, Trade Fairs), Direct media.

CO4: Elaborating the Factors to be kept in mind while selecting advertising media.

Media Planning

CO1: Explaining the Media Planning: Introduction.

CO2: Describing the Importance of media planning, Steps involved in media planning.

CO3: Highlighting the Factors influencing Media planning.

Media Scheduling

CO1: Describing the introduction to media scheduling

CO2: Explaining the Importance of Media Scheduling.

CO3: Highlighting the Methods of media scheduling.

Evaluation of advertising effectiveness

CO1: Explaining the Evaluation of Advertising Effectiveness: Introduction, Importance of evaluation of advertising effectiveness.

CO2: Describing the Methods of measuring Advertising Effectiveness, Pre - testing and Post – testing.

Personal Selling

CO1: Explaining the Personal selling: Introduction, Nature and Importance of Personal Selling.

CO2: Describing the Objectives of Personal selling, Advantages of personal selling

CO3: Highlighting the Limitation of Personal selling.

Psychology in buying and selling motives

CO1: Explaining the Psychology in selling and Buying Motives: Introduction to Psychology Selling.

CO2: Highlighting the Stages in Psychology process of Buying Motives and Selling points.

CO3: Describing the Buying Motives and Group Influence.

Process of Effective Selling

CO1: Explaining the introduction to process of effective selling, Stages involved in Selling process.

CO2: Describing the Prospecting , Pre-Approach, Approach.

CO3: Highlighting the Presentation Demonstration, Handling.

CO4: Elaborating the Objectives, Closing of sales, Post Sales activities.

Salesmanship

CO1: Explaining the Salesmanship: Introduction to Salesmanship, Origin and Evolution of Salesmanship.

CO2: Describing the Essential features of Good Salesmanship, Nature of Salesmanship.

CO3: Highlighting the Scope of Salesmanship.

Sales Organisation

CO1: Describing the Sales Organization: Introduction to Sales Organization, Structure of Sales Organization.

CO2: Explaining the Objectives of Sales Organization, Functions of Sales Organization.

CO3: Highlighting the Importance of Sales Organization, Types of Sales Organization.

Sales Force Management

CO1: Highlighting the Sales force: Meaning, Need of Sales force.

CO2: Describing the Objectives of Sales force, Functions of Sales force.

CO3: Explaining the Importance of Sales force skills possessed by sales force.

Personnel Management in selling field

CO1: Explaining the Personnel Management in the selling field, Activities of Sales force Management.

CO2: Describing the Sales Execution, Sales force management.

Recruitment and selection of sales personnel

CO1: Explaining the Recruitment and Selection of sales personnel: Recruitment sources, Recruitment Process.

CO2: Describing the Recruitment Techniques, Selection sources.

CO3: Highlighting the Selection Process, Selection Techniques.

Sales Force Training

CO1: Explaining the Sales force Training, Aims of training.

CO2: Describing the Identification of training needs, Contents of the training programme.

CO3: Highlighting the Training methods, Executive and evaluation of sales training programmes.

Motivation and morale of sales force

CO1: Explaining the Motivation and Moral of sales force, Compensation of sales force.

CO2: Describing the Performance Appraisal of sales force.

Elements of Entrepreneurship

CO1: Highlighting the Entrepreneurship – Meaning, Need of entrepreneurship.

CO2: Explaining the Characteristics of entrepreneurship, Evolution and Development of entrepreneurship.

CO3: Describing the Factors influencing entrepreneurial growth, Entrepreneur.

CO4: Elaborating the Classification and Types of Entrepreneurs, Qualities of entrepreneurs: Creativity, innovation and Entrepreneurship.

Market Survey

CO1: Explaining the Market Survey, Objectives of market survey.

CO2: Describing the Techniques of market survey, PERT, CPM (Applications – Advantages-

Limitations).

CO3: Highlighting the differences between PERT Vs CPM.

Identification of Opportunities

CO1: Explaining the Identification of Opportunities, Project Identification.

CO2: Describing the Criteria for selecting a particular project, Converting Business opportunities into reality.

CO3: Highlighting the SWOT Analysis.

Location Problems

CO1: Highlighting the Location problems, Factors influencing location of projects.

CO2: Describing the Environmental problems, Measures and actions, Technology utilization and Quality control.

Setting up of small-scale industry

CO1: Explaining the Setting up of Small-Scale Industry, Steps involved in setting up Small Scale

Industry.

CO2: Describing the Preparation of feasibility report, Guidelines for feasibility report.

Concept of Service Marketing

CO1: Highlighting the Concept of services marketing, Nature of services marketing.

CO2: Describing the Scope of services marketing, Characteristics of services marketing.

CO3: Explaining the Importance of services marketing, Goods Vs Services.

CO4: Elaborating the Emergence and Reasons for growth of service sector in India

Classifications of services marketing.

CO5: Giving a brief note on Environment of services marketing.

Marketing Mix of Services

CO1: Elaborating of Marketing Mix of Services: 8 Ps of marketing mix-Product, Price,

Promotion, Marketing Mix of Services: Place, Physical evidence, People.

CO2: Describing the Marketing Mix of Services: Processes, Planning and creating of services, Identifying and classifying supplementary services.

CO3: Highlighting of Product life cycle of services, Branding of services, New Service development.

Pricing of Services

CO1: Explaining of Pricing of Services, Objectives, Approaches.

CO2: Describing the Methods, Problems in pricing. Promotion and Personal Selling in service industry, designing the communication mix for services.

CO3: Highlighting the Objectives of communication, Challenges and Opportunities, Distribution channels for services.

CO4: Elaborating the Options for service delivery, Modes of delivery¸ The role of intermediaries.

Importance of people in Service Marketing

CO1: Elaborating the Importance of people in service marketing, Role of various people involved.

CO2: Explaining the Physical Evidence, Concept of Physical Evidence.

CO3: Describing the Importance, Types of Physical Evidence in various services.

CO4: Highlighting the Process concept, Types of process, Role of process in various services.

Challenges in Marketing of Services

CO1: Explaining the Challenges in marketing of services, Application of Service Marketing to Hospitals.

CO2: Describing the Application of Service Marketing to Educational Institutions, Application of Service Marketing to Tourism.

CO3: Highlighting the Application of Service Marketing to Banking and Hospitality Industries.

Sales Promotion

CO1: Explaining the Meaning of sales promotion, Nature and growing Importance of sales promotion.

CO2: Describing the Methods of sales promotion: Consumer oriented sales promotion, Manufacturing oriented sales promotion.

CO3: Elaborating the Trade oriented sales promotion.

Tools of Sales Promotion

CO1: Describing the Major tools of sales promotion – Samples, Point of purchases, Display,

Demonstrations, Yellow Pages, Exhibitions, Fashion shows, Consumer contest.

CO2: Explaining the Coupons, Lotteries, Gifts, Premiums, free goods, Conventions, Conference, Trade Shows.

CO3: Highlighting the Rebate Patronage, Rewards, Sales promotion on internet.

Developing Sales Promotion Programmes

CO1: Elaborating the Developing sales promotion program, Pretesting.

CO2: Describing the Post testing, Implementing and evaluating the sales promotion programs.

CO3: Explaining the Making necessary modifications for effective sales promotion program.

Public relations

CO1: Explaining the Meaning of Public Relations, Functions of Public Relations.

CO2: Elaborating the Public Relations and Marketing, Evaluation of Public Relations.

Corporate Image Building

CO1: Highlighting the Corporate Image Building, Media Relations.

CO2: Describing the Internal communications, Newsletters.

CO3: Explaining the Events marketing and sponsorship, Sports promotion, Crisis communication.

Differential Equations

CO1: Solve separable, homogeneous, exact, and linear first-order differential equations with and without initial conditions.

CO2: Determine regions of the plane over which a given first-order differential equation will have a unique solution.

CO3: Solve application problems modelled by separable, homogeneous, exact, linear first-order differential equations, and equations reducible to first order differential equations.

CO4: Solve linear equations with constant coefficients.

CO5: Solve and understand the application problems modelled by linear differential equations.

CO6: Solve non-homogeneous linear equations with constant coefficients using the methods of undetermined coefficients and variation of parameters.

CO7: Learn to solve differential equations with variable coefficients.

CO8: Recognize and solve Cauchy-Euler equations.

Differential & Integral Calculus:

CO1: Find the limit of a function using the Limit Laws.

CO2: Use the formal definition of limit to establish the limit of linear and quadratic functions.

CO3: Find the derivative of elementary algebraic functions and trigonometric functions using the definition of derivative.

CO4: Find the derivative of a function using implicit differentiation.

CO5: Solve related rates application problems.

CO6: Find intervals of concavity and points of inflection of elementary algebraic functions and trigonometric functions.

CO7: Classify local extreme values using the first and second derivative tests.

CO8: Sketch the graph of algebraic and trigonometric functions by putting together all the information obtained using derivatives and limits.

CO9: Find absolute extreme values of a function using the Extreme Value Theorem.

Real Analysis:

CO1: Prove a basic set theoretic statement

CO2: Define the limit of a function at a value, a limit of a sequence, and the Cauchy criterion

CO3: Prove a theorem about limits of sequences and functions

CO4: Check the convergence of Infinite series by using various methods

CO5: Solve the convergence of sequence and series of functions and Radius of convergence

CO6: State the Bolzano-Weierstrass theorem, Rolle's theorem, extreme value theorem, and the Mean Value theorem

CO7: Define Riemann integrable and Riemann sums

CO8: Prove a theorem about Riemann sums and Riemann integrals.

Algebra

CO1: Demonstrate understanding of the relationships between abstract algebraic structures with familiar numbers systems such as the integers and real numbers.

CO2: Demonstrate understanding of and the ability to verify relationships between operations satisfying various properties (e.g. commutative property).

CO3: Demonstrate understanding the ability to work within various algebraic structures.

CO4: Demonstrate understanding of the importance of algebraic properties with regard to working within various number systems.

CO5: Demonstrate understanding the concept of Homomorphism & Isomorphism

CO6: Demonstrate ability to solve permutation groups

CO7: Demonstrate the understanding the cyclic groups.

CO8: Demonstrate the concepts of ring theory

CO9: Solving the problems on Ring theory

CO10: Demonstrate the concept of homomorphism and isomorphism on rings

CO11: Identifying the maximal ideals

Linear Algebra:

CO1: To learn the concepts of vector space, Basis and Dimensions.

CO2: To learn the importance of linear transformation in Physics, Engineering, Social sciences and various branches of Mathematics.

CO3: To learn and understand the concepts of Linear Dependence and Independence, Linear span and it's applications

CO4: To learn to find Eigen values and Eigen vectors of a matrix which is used in the study of vibrations, chemical reactions and geometry.

CO5: To learn Inner Product spaces and Gram-Schmidt process of orthogonalization.

CO6: To get well equipped with Mathematical Modelling abilities.

Numerical Analysis:

CO1: Demonstrate understanding of common numerical methods and how they are used to obtain approximate solutions to otherwise intractable mathematical problems.

C02: Apply numerical methods to obtain approximate solutions to mathematical problems.

CO3: Derive numerical methods for various mathematical operations and tasks, such as interpolation, differentiation, integration, the solution of linear and nonlinear equations, and the solution of differential equations.

CO4: Analyse and evaluate the accuracy of common numerical methods**.**

CO5: Applications of initial value problems with various methods.

Analytical Solid Geometry

CO1: Calculate measurements of plane and solid geometric figures.

CO2: Construct logical arguments, based on axioms, definitions and theorems, to **CO3**: Prove theorems and other results in geometry.

CO4: Know and apply properties of geometric figures to solve real-world and mathematical problems and to logically justify results in geometry.

CO5: Relate solid geometry to familiar objects of everyday experiences.

CO6: Develop their imagination in visualizing space objects.

Department of Informatics **BCA**

Mathematical Foundations of Computer Science

CO1: Simplify and evaluate basic logic statements including compound statements, implications, inverses, converses, and contra positives using truth tables and the properties of logic.

CO2: Determine the domain and range of a discrete or non-discrete function, graph functions, identify one-to-one functions, perform the composition of functions, find and/or graph the inverse of a function, and apply the properties of functions to application problems.

CO3: Verify that a simple program segment with given initial and final assertions is correct using the rule of inference for verification of partial correctness and loop invariants.

CO4: Describe binary relations between two sets; determine if a binary relation is reflexive, symmetric, or transitive or is an equivalence relation; combine relations using set operations and composition.

CO5: Describe N-ary relations between N sets and apply basic database operations such as projections to determine if a given graph is simple or a multigraph, directed or undirected, cyclic or acyclic, and determine the connectivity of a graph. N-ary relations.

Digital Principles

CO1: Make students understand the structure and function of digital computers.

CO2: Gain knowledge on basic digital systems and number system

CO3: Analyse and model the structure and functioning of a digital computer, including overall system architecture and digital components.

CO4: To describe the structure and functioning of a digital computer, including its overall system architecture and digital components.

CO5: To understand the generic principles that underlie the building of a digital computer, including data representation, digital logic.

Programming in 'C'

CO1: Understand fundamentals of programming such as variables, conditional and iterative execution.

CO2: Be able to understand functions, arrays.

CO3: Be able to write programs using pointers ·

CO4: To be able to understand Structures and Standard Input/output.

Introduction to Web Technology

CO1: To learn HTML tags and Java Script Language programming concepts and techniques.

CO2: To develop the ability to logically plan and develop web pages.

CO3: To learn to write, test, and debug web pages using HTML and Java Script.

CO4: To learn how to develop XML document.

CO5: Develop a dynamic webpage by the use of DHTML.

Programming in C LAB

CO1: Develop programming skills using the fundamentals and basics of C Language.

CO2: Develop programs using the basic elements like control statements, Arrays and Strings.

CO3: Enable effective usage of arrays, structures, functions and pointers.

CO4: Implement files and command line arguments.

Introduction to Web Technology LAB

CO1: Analyze a web page and identify its elements and attributes.

CO2: Create web pages using XHTML and Cascading Style Sheets. ·

CO3: Build dynamic web pages using JavaScript (Client-side programming).

CO4: Create XML documents and Schemas.

IT workshop LAB

CO1: Identify various hardware components of a system

CO2: Assemble the computer.

CO3: Use various Microsoft tools.

CO4: Use Linux Commands

Human Ethics

CO1: To create an awareness on Ethics and Human Values.

CO2: To study the moral issues and decisions confronting individuals and organizations engaged in profession.

CO3: To study the related issues about the moral ideals, character, policies, and relationships of people and corporations involved in technological activity.

CO4: Learn the moral issues and problems, find the solution to those problems.

CO5: Learn the need for professional ethics, codes of ethics and roles, concept of safety, risk assessment.

CO6: Gain exposure to Environment Ethics & computer ethics; know their responsibilities and rights

Fundamental of Probability and Statistics

CO1: To provide an understanding for the graduate business students on statistical concepts

CO2: To include measurements of location and dispersion, probability, probability distributions, sampling

CO3: Estimation, hypothesis, testing, regression, and correlation analysis, multiple regression

CO4: Goal is to develop knowledge and skills in theoretical and computational, application-oriented statistics.

CO5: Along with a depth knowledge in algebra, analysis or statistics. Students will formulate complete concise and correct mathematical proofs.

Object Oriented Programming

CO1: Perform object-oriented programming to develop solutions to problems demonstrating usage of control structures, modularity, I/O. and other standard language constructs.

CO2: Demonstrate adeptness of object-oriented programming in developing solutions to problems demonstrating usage of data abstraction, encapsulation, and inheritance.

CO3: Demonstrate ability to implement one or more patterns involving realization of an abstract interface and utilization of polymorphism in the solution of problems which can take advantage of dynamic dispatching.

CO4: Be able to understand the difference between object-oriented programming and procedural oriented language and data types in C++.

CO5: Be able to program using C++ features such as composition of objects, Operator overloading, inheritance, Polymorphism etc.

Data Structures using CPP

C01: To import the basic concepts of data structures and algorithms.

C02: To understand concepts about searching and sorting techniques.

C03: To understand basic concepts about stack, queues, lists, trees and graphs.

C04: To understanding about writing algorithms and step by step approach in solving problems with the help of fundamental data structures.

Data Communications

CO1: To understand the basic concepts of data communication, layered model, protocols and interworking between computer networks

CO2: To understand Signal Encoding.

CO3: To understand Data link Control protocol HDLC.

CO4: To understand Multiplexing.

Data Structures using CPP LAB

CO1: Be able to design and analyze the time and space efficiency of the data structure

CO2: Be capable to identity the appropriate data structure for given problem

CO3: Have practical knowledge on the applications of data structures

Object Oriented Programming LAB

CO1: Implement the concepts of object-oriented programming.

CO2: Apply string functions to perform operator overloading.

CO3: Demonstrate virtual functions and inheritance.

CO4: Implement files and command line arguments.

Web Programming with PHP LAB

CO1: Write PHP scripts to handle HTML forms.

CO2: Write regular expressions including modifiers, operators, and metacharacters.

CO3: Create PHP programs that use various PHP library functions, and that manipulate files and directories.

CO4: Analyze and solve various database tasks using the PHP language.

CO5: Analyze and solve common Web application tasks by writing PHP programs.

Applied Mathematics

CO1: Ability to solve the problems of partial Differentiation.

CO2: To understand Vector Spaces

CO3: Ability to solve problems using linear Transformations.

CO4: Solve the problems of eigen values.

Computer Architecture

CO1: To know the data representation, fixed and floating-point representation.

CO2: Basic concept of Binary codes and error Detection codes.

CO3: To know about Digital logic circuits and Logic gates.

CO4: Understand CPU instruction formats, addressing modes and interrupts

CO5: To understand input output organization Direct Memory Allocation.

Core Java Programming

CO1: Gain knowledge about basic Java language syntax and semantics to write Java programs and use concepts such as variables, conditional and iterative execution methods etc.

CO2: Understand the fundamentals of object-oriented programming in Java, including defining classes objects, invoking methods etc. and exception handling mechanisms.

CO3: Understand the principles of inheritance, packages and interfaces.

CO4: Understand the working of AWT package.

Database Design

CO1: Describe basic concepts of database system.

CO2: Design a data model and schemas in RDBMS.

CO3: Be competent in use of Structured Query Language SQL.

CO4: Analyse functional dependencies for designing a robust database.

CO5: Implement transactions, concurrency control, and be able to do Database recovery.

Operating Systems Concepts

CO1: To understand the services provided by and the design of an operating system.

CO2: To understand the structure and organization of the file system.

CO3: To understand what a process is and how processes are synchronized and scheduled.

CO4: To understand different approaches to memory management.

CO5: Students should be able to use system calls for managing processes, memory and the file system.

Core JAVA Programming LAB

CO1: Remember the fundamentals of Java programming language.

CO2: Understand the basics of Java programming, multi-threaded programs and Exception handling.

CO3: Analyze and use Java in a variety of applications.

CO4: Write and debug a software application developed using the Java programming language.

Database Design LAB

CO1: Apply the basic concepts of Database Systems and Applications.

CO2: Use the basics of SQL and construct queries using SQL in database creation and interaction.

CO3: Design a commercial relational database system (Oracle, MySQL) by writing SQL using the system.

CO4: Analyze and Select storage and recovery techniques of database system.

Operating Concepts LAB

CO1: Inter process communication including shared memory, pipes and messages

CO2: Simulation of CPU Scheduling Algorithms. (FCFS, RR, SJF, Priority, Multilevel Queuing)

CO3: Simulation of Banker's Algorithm for Deadlock Avoidance, Prevention Program for FIFO, LRU, and OPTIMAL page replacement algorithm

Distributed and cloud Computing

CO1: Understand the importance of virtualization in distributed computing and how this has enabled the development of Cloud Computing.

CO2: Understand the Performance and various metrics of cloud computing

CO3: Understand the various types of clouds and their roles in cloud computing

CO4: Understand the various concepts of security and Cloud infrastructure models

Artificial Intelligence

CO1: Design an Intelligent Agent using PAGE Concept.

CO2: Optimize Problem Solving Techniques.

CO3: Applying First order Logic and Predicate logic to develop a Goal Based Agent

CO4: Solving Problems by Searching Algorithms.

CO5: Application of Inference Rules in First Order Logic

Data Science with Python

CO1: Understand Data Science Importance.

CO2: Understand the jobs of Data Science and where we can use these concepts.

CO3: Develop the applications of Data Science using Python language.

CO4: Understand the concepts of Numpy and Pandas.

CO5: Develop the applications on Numpy and Pandas.

Software Engineering

CO1: To know the quality, cost and schedule of the project.

CO2: Understand development models i.e.: waterfall model, RUP model, Spiral model etc.

CO3: Understand project management models.

CO4: Understand the architectural styles, design and evaluate the test cases

CO5: Application of software in different areas by selecting development process models

Computer Networks

CO1: Able to Understand Medium Access protocol like CDMA/CD

CO2: Able to Understand Wired LAN Architecture

CO3: Able to Understand IP Addressing in detail.

CO4: Able to Understand Transport layer state diagram

CO5: Able to Understand Socket programming.

Data Science with Python LAB

CO1: Develop algorithmic solutions to simple computational problems.

CO2: Demonstrate programs using simple Python statements and expressions.

CO3: Learn control flow and functions concept in Python for solving problems

CO4: Use Python data structures – lists, tuples & dictionaries for representing compound data.

CO5: Use files, exception, modules and packages in Python for solving problems

Software Engineering LAB

CO1: Able to prepare SRS document, design document, test cases and software configuration management and risk management related document.

CO2: Develop function oriented and object-oriented software design using tools like rational rose.

CO3: Able to perform unit testing and integration testing.

CO4: Apply various white box and black box testing techniques

Computer Networks LAB

CO1: Understand the structure and organization of computer networks; including the division into network layers, role of each layer, and relationships between the layers.

CO2: Understand the basic concepts of application layer protocol design; including client/server models, peer to peer models, and network naming. ·

CO3: In depth understanding of transport layer concepts and protocol design; including connection oriented and connection-less models, techniques to provide reliable data delivery and algorithms for congestion control and flow control

Programming using ASP Dot NET

CO1: Able to understand the frame work architecture, advantages in building the console applications

CO2: Able to understand and run different console application programs in C# Programming

CO3: Able to understand to create a web page and design the various components by using the .NET framework toolbox

CO4: Understand to connect its web page to Databases using the ADO, NET API.

Unix Programming

CO1: Run various UNIX commands on a standard UNIX/LINUX Operating system.

CO2: Understand and handle UNIX commands.

CO3: Do shell programming on UNIX OS.

CO4 Run programs on UNIX.

CO5: Become familiar with php programs.

Data Science using R

CO1: download and install R and RStudio

CO2: navigate and optimize the R integrated development environment (IDE) RStudio

CO3: install and load add-in packages

CO4: Import external data into R for data processing and statistical analysis

CO5: learn the main R data structures – vector and data frame

Software Quality Testing

CO1: Understand software testing and quality assurance as a fundamental component of software life cycle.

CO2: Define the scope of SW T&QA projects

CO3: Efficiently, T&QA activities using modern software tools

CO4: Estimate cost of a T&QA project and manage budgets

CO5: Prepare test plans and schedules for a T&QA project

Mobile Application and Development

CO1: To learn about the concepts and principles of mobile application development

CO2: To explore both theoretical and practical issues of mobile application development

CO3: To develop skills of finding solutions and building software for mobile application development

CO4: Grasp the concepts and features of mobile technologies and applications.

CO5: Have a good understanding of how the underlying wireless and mobile communication

Data Mining

CO1: Understand basic concepts and fundamentals in Data mining.

CO2: Learn how to gather and analyze large sets of data to gain useful business understanding

CO3: Learn how to produce a quantitative analysis report/memo with the necessary information to make decisions.

CO4: Master the basic data mining algorithms, methods, and tools

CO5: Identifies business applications of data mining

Programming using ASP Dot NET LAB

CO1: Understand the Microsoft .NET Framework and ASP.NET page structure

CO2: Design web application with variety of controls

CO3: Access the data using inbuilt data access tools

CO4: Use Microsoft ADO.NET to access data in web Application

CO5: Configure and deploy Web Application

Unix Programming LAB

CO1: Able to run various UNIX commands on a standard UNIX/LINUX Operating system

CO2: Able to run C / C++ programs on UNIX.

CO3: Able to do shell programming on UNIX OS.

CO4: Write PHP scripts to handle HTML forms.

CO5: Write regular expressions including modifiers, operators, and meta characters.

Data Science using R LAB

CO1: Learn to program in R Language

CO2: Learn to use R Studio

CO3: Master statistics for machine learning

CO4: Master Vectors, Lists & Data frames

Information Security

CO1: Understand the role of Information security in the organization.

CO2: Understand the different standard, ethics and policies own by the organization.

CO3: Able to understand strategic planning of information security

CO4: Able to understand the cryptographic method to secure the information from the intruder over the network.

Advance Java

CO1: To provide the ability to design console based, GUI based and web-based applications

CO2: To understand integrated development environment to create, debug and run multi-tier and enterprise-level applications

CO3: Create a software application using the Java programming language.

CO4: Debug a software application written in the Java programming language.

Big data Analytics

CO1: Introduce students the concept and challenge of big data (3 V's: volume, velocity, and variety).

CO2: Teach students in applying skills and tools to manage and analyze the big data.

CO3: To explore the fundamental concepts like HDFS and Map Reduce of big data analytics.

CO4: To understand the applications using Map Reduce Concepts.

CO5: To learn to analyze the big data using intelligent techniques.

Internet of Things

CO1: To understand about the fundamentals of Internet of Things and its building blocks along with their characteristics

CO2: To understand the recent application domains of IoT in everyday life

CO3: To understand the protocols and standards designed for IoT and the current research on it.

CO4: To understand the other associated technologies like cloud and fog computing in the domain of IoT

MCA

Mathematical Foundations of Computer Science

CO1: To learn logic theory and Boolean algebra related to computer science

CO2: To understand relations and functions

CO3: To gain insights into recurrence relation

CO4: To comprehend algebraic structure

CO5: To study graph theory and concepts of trees

Data Structures using C

CO1: Implement linear and non-linear data structure operations using C
CO2: Suggest appropriate linear / non-linear data structure for any given data set.

CO3: Apply hashing concepts for a given problem

CO4: Modify or suggest new data structure for an application

CO5: Appropriately choose the sorting algorithm for an application

Object Oriented Programming using Java

C01: To Explain OOPs features and concepts

C02: To Write basic Java programs

C03: To Write I/O programs in Java

C04: To Use various built-in Java classes and methods

C05: To Create window-based Java programs

Computer Architecture

C01: Apply data representation methods

C02: Write logic diagrams for microoperations

C03: Write general register organization diagrams

C04: Analyze computer arithmetic algorithms.

C05: Explain I/O organization

Probability and Statistics

CO1: Understanding of Linear Algebra will boost the ability to understand and apply various data science algorithms.

CO2: Calculate probabilities by applying probability laws and theoretical results, knowledge of important discrete and continuous distributions, their inter relations with real time applications.

CO3: Understanding the use of sample statistics to estimate unknown parameters.

CO4: Become proficient in learning to interpret outcomes.

CO5: Compute and interpret Correlation Analysis, regression lines and multiple regression analysis with applications

Managerial Economics and Accountancy

CO1: Apply the fundamental concepts of managerial economics to evaluate business decisions Understand types of Demand and factors related to it.

CO2: Identify different types of markets and determine price –output under perfect competition.

CO3: Determine working capital requirement and payback

CO4: Analyze and interpret financial statements through ratios

Data Structures using C Lab

CO1: Write basic and advanced programs in C

CO2: Implement functions and recursive functions in C

CO3: Implement data structures using C

CO4: Choose appropriate sorting algorithm for an application and implement it in a modularized way

Java Programming Lab

CO2: Be able to write multithreaded programs

CO3: Be able to write I/O programs

CO4: Be able to write serialization programs

CO5: Be able to write URL class program

Soft Skills Lab

CO1: Express conversational skills

CO2: Specify reading strategies

CO3: Perform time management

CO4: Perform stress management

CO5: Explore career planning

Operating Systems

CO1: Explain operating systems and Unix OS, illustrate the workings of various OS components.

CO2: Analyze the process, its states and process scheduling algorithms.

CO3: Demonstrate paging, demand paging, page replacement and segmentation with illustrations.

CO4: Elaborate the file access and allocation methods and mass storage structures.

CO5: Describe concrete implementations of Linux system and Windows 7.

Database Management System

CO1: Able to Explain the DB concepts and model requirements as ER-model

CO2: Suggest relational algebra queries from text specification

CO3: Write SQL queries for the, given questions

CO4: Elaborate indexing and hashing and describe concurrency control concepts

CO5: Comprehend NoSQL technology

Design and Analysis of Algorithms

C01: Carry out algorithms time complexity

C02: Explain divide and conquer approach

C03: Illustrate greedy method

C04: Elaborate dynamic programming

C05: Explore backtracking

Artificial Intelligence

C01: Write python programs

C02: Solve search problems

C03: Apply propositional, predicate calculus and knowledge representation

C04: Analyze probability theory

CO5: Explore machine learning and explain NLP

Machine Learning

CO1: Solve regression problems

CO2: Apply dimensionality reduction methods

CO3: Analyze classification schemes

CO4: Explore clustering mechanisms

CO5: Explain evaluation metrics

Operations Research

CO1: Solve linear problems

CO2: Apply transportation problems

CO3: Analyze assignment problems

CO4: Explore dynamic programming

CO5: Explain gaming theory

Operating Systems Lab

CO1: Be able to execute shell commands and write shell scripts

CO2: Be able to write programs on CPU scheduling

CO3: Be able to create memory management algorithms

CO4: Be able to execute programs to demonstrate synchronization problems

CO5: Be able to implement file allocation methods and be able to create disk scheduling algorithms.

AI with Python Lab

CO1: Write machine learning algorithms in python

CO2: Write supervised algorithm programming

CO3: Write unsupervised algorithm programming

CO4: Write NLP programming

CO5: Write neural network programming

Database Management Systems Lab

CO1: Write SQL queries

CO2: Write stored procedures

CO3: Write triggers

CO4: Use file locking and table locking facilities

CO5: Create small full-fledged database application

Software Engineering

CO1: The student able to know the quality, cost and schedule of the project.

CO2: Understand development models i.e.: waterfall model, RUP model, Spiral model etc.

CO3: Understand project management models.

CO4: Understand the architectural styles, design and evaluate the test cases

CO5: Basic concepts of software engineering

Computer Networks

CO1: Build an understanding of the fundamental concepts of computer networking.

CO2: Familiarize the student with the basic taxonomy and terminology of the computer networking area.

CO3: Introduce the student to advanced networking concepts, preparing the

CO4: Student for entry Advanced courses in computer networking.

CO5: Allow the student to gain expertise in some specific areas of networking such as the design and maintenance of individual networks.

Data Science

CO1: Download and install R and RStudio

CO2: Navigate and optimize the R integrated development environment (IDE) RStudio

CO3: Install and load add-in packages

CO4: Import external data into R for data processing and statistical analysis

CO5: Learn the main R data structures – vector and data frame

Web Technologies

CO1: Demonstrate competency in the use of common HTML code.

CO2: Construct efficient file structure for websites.

CO3: Evaluate the functions of specific types of web pages in relationship to an entire web site.

CO4: Create web pages that meets accessibility need of those with physical disabilities.

CO5: Understand how CSS will affect web page creation.

Information Security

CO1: Understand the role of Information security in the organization.

CO2: Understand the different standard, ethics and policies own by the organization.

CO3: Able to understand strategic planning of information security

CO4: Able to understand the cryptographic method to secure the information from the intruder over the network.

Computer Networks Lab

CO1: Structure and organization of computer networks; including the division into network layers, role of each layer, and relationships between the layers.

CO2: Understand the basic concepts of application layer protocol design; including client/server models, peer to peer models, and network naming. ·

CO3: In depth understanding of transport layer concepts and protocol design; including connection oriented and connection-less models, techniques to provide reliable data delivery and algorithms for congestion control and flow control.

Software Engineering Lab

CO1: Able to prepare SRS document, design document, test cases and software configuration management and risk management related document.

CO2: Develop function oriented and object-oriented software design using tools like rational rose.

CO3: Able to perform unit testing and integration testing.

CO4: Apply various white box and black box testing techniques

Data Science Lab Course Outcome:

CO1: Use various data structures and packages in R for data visualization and summarization.

CO2: Use linear, non-linear regression models, and classification techniques for data analysis.

CO3: Use clustering methods including K-means and CURE algorithm

Big Data Analytics

CO1: Understand the concept and challenge of big data and why existing technology is inadequate to analyze the big data

CO2: Understand the concept and challenge of big data and why existing technology is inadequate to analyze the big data

CO3: Work with big data platform and explore the big data analytics techniques.

CO4: Design efficient algorithms for mining the data from large volumes.

CO5: Analyze the HADOOP and Map Reduce technologies associated with big data analytics.

CO6: Explore on Big Data applications Using Pig and Hive.

Cyber Security

CO1: Analyze and evaluate the cyber security needs of an organization.

CO2: Determine and analyze software vulnerabilities and security solutions to reduce the risk of exploitation.

CO3: Measure the performance and troubleshoot cyber security systems.

CO4: Comprehend and execute risk management processes, risk treatment methods, and key risk and performance indicators

CO5: Design and develop a security architecture for an organization.

Organization Behaviour

CO1: Define the organizational functions, tasks management responsibilities.

CO2: Understand basic financial problems

CO3: Describe project and production management, critical path, bar chart.

M.Sc. [IS]

Advance Data Structures and Algorithms

CO1: Analyze the asymptotic performance of algorithms.

CO2: Understand the process of writing algorithms to perform a task.

CO3: Demonstrate and compare various Algorithms.

CO4: Apply important algorithmic design paradigms and methods of analysis.

CO5: Synthesize efficient algorithms in common engineering design situations.

Mobile and Pervasive Computing

CO1: To learn about the concepts and principles of mobile computing;

CO2: To explore both theoretical and practical issues of mobile computing;

CO3: To develop skills of finding solutions and building software for mobile computing

CO4: Grasp the concepts and features of mobile computing technologies and applications.

CO5: Gave a good understanding of how the underlying wireless and mobile communication networks work, their technical features, and what kinds of applications they can support.

Distributed System

CO1: The course learning outcomes, specific knowledge, skills and about DN

CO2: Knowledge about connecting users and resources.

CO3: Knowledge about the Basic RPC Operation, parameter passing

CO4: Knowledge about Requirements Capture.

CO5: Knowledge about A Fault Tolerance, Security

Software Project Management

CO1: Use an object-oriented method for analysis and design.
CO2: Write diagrams in UML.

CO3: Analyse information systems in real-world settings and application of UML.

CO4: Have an understanding of a systems development with focus on unified software development process.

CO5: Know techniques to effectively apply systems development process.

Machine Learning

CO1: Gain a good understanding of the techniques and tools for applying machine learning.

CO2: Understand the analysis part using Machine Learning Algorithms.

CO3: Understanding the usage of ML algorithms at appropriate place.

CO4: Understanding the need for implementation of ML algorithms.

CO5: Design a Statistical and Machine Learning algorithm.

Advance Data Structures and Algorithms LAB

CO 1: Implementation of Merge Sort and Quick Sort-Analysis

CO 2: Implementation of a Binary Search Tree

CO 3: Red-Black Tree Implementation

CO 4: Heap Implementation

CO 5: Fibonacci Heap Implementation

Machine Learning LAB

CO1: Able to Implement and demonstrate the FIND-S algorithm for finding the most specific hypothesis based on a given set of training data samples. Read the training data from a.CSV file.

CO2: For a given set of training data examples stored in a .CSV file, implement and demonstrate the Candidate-Elimination algorithm to output a description of the set of all hypotheses consistent with the training examples.

CO3: Able to Write a program to demonstrate the working of the decision tree based ID3 algorithm. Use an appropriate data set for building the decision tree and apply this knowledge to classify Use an appropriate data set for building the decision tree and apply this knowledge to classify a new sample.

CO4: Able to Build an Artificial Neural Network by implementing the Back propagation algorithm and test the same using appropriate data sets.

CO 5: Able to Write a program to implement the naïve Bayesian classifier for a sample training data set stored as a .CSV file. Compute the accuracy of the classifier, considering few test data sets.

Cloud Computing

CO1: Good understanding of cloud computing and systematic knowledge of the fundamental technologies, architecture and security.

CO2: Cloud computing allow to provide sufficient foundations to enable further study and research.

CO3: Articulate the main concepts, key technologies, strength and limitations of cloud computing.

CO4: Identify the architecture and infrastructure of cloud computing including iaas, paas, saas, public, private cloud, hybrid cloud etc.

CO5: Understand the core issues in security and privacy.

Network Security

CO1: Provide students with a high-level understanding of how information security functions in an Organisation.

CO2: Develop solutions for networking and security problems; balancing business concerns technical issues and security.

CO3: Students develop a secure network

CO4: Defence networking and wireless security, applied cryptography as well as ethical, legal, social and economic facets of security.

Natural Language Processing

CO1: Learn the Basic Fundamentals of Probability Theory, Conditional Distribution an Entropy.

CO2: Understand the Linguistic Essentials and Collocations.

CO3: Learn about the Statistical models for NLP, Word Sense Disambiguation.

CO4: Understand the Hidden Markov Models, Part-of-Speech Tagging.

CO5: Understand Probabilistic Context Free Grammars and Clustering,

Advance Software Engineering

CO1: The student able to know the quality, cost and schedule of the project.

CO2: Understand Software Models i.e. Waterfall model, Prototyping, Spiral Model etc.

CO3: Understand Software Project Management and Software Configuration Management

CO4: Understand Software Requirement Specification

CO5: The student able to know the architecture and design and design patterns

Information Retrieval System

CO1: To present the basic concepts in information retrieval and
more advance techniques of multimodal based information systems.

CO2: Understand the underlined problems related to IR

CO3: Acquired the necessary experience to design, and implement real applications using Information Retrieval systems.

Natural Language Processing LAB

CO1: Understand approaches to syntax and semantics in NLP.

CO2: Understand approaches to discourse, generation, dialogue and summarization within NLP.

CO3: Understand current methods for statistical approaches to machine translation.

CO4: Understand machine learning techniques used in NLP, including hidden Markov models and probabilistic context-free grammars, clustering and unsupervised methods, log-linear and discriminative models, and the EM algorithm as applied within NLP.

Advance Software Engineering LAB

CO1: Able to prepare SRS document, design document, test cases and software configuration management and risk management related document.

CO2: Develop function oriented and object-oriented software design using tools like rational rose.

CO3: Able to perform unit testing and integration testing.

CO4: Apply various white box and black box testing techniques

Big Data Analytics

CO1: Gain a good understanding of the architecture and functioning of Big Data Architecture as well as associated tools and techniques.

CO2: Understand and apply the principles of data analysis using Map Reduce.

CO3: Understanding the use of Eco System components of Hadoop.

CO4: Understanding the need for No-SQL implementation.

CO5: Understand the need of Hadoop implementation over Text Analystics, and social media data.

Cyber Security.

CO1: Analyze and evaluate the cyber security needs of an organization.

CO2: Determine and analyze software vulnerabilities and security solutions to reduce the risk of exploitation.

CO3: Measure the performance and troubleshoot cyber security systems.

CO4: Implement cyber security solutions and use of cyber security, information assurance, and cyber/computer forensics software/tools.

CO5: Comprehend and execute risk management processes, risk treatment methods and key risk and performance indicators.

Deep learning

CO1: Understand the Basic concepts of Biological Neuron, Idea of computational units.

CO2: Implement deep learning algorithms, understand neural networks and traverse the layers of data abstraction which will empower the student to understand data more precisely.

CO3: Learn topics such as convolutional neural networks, recurrent neural networks, training deep networks and high-level interfaces.

CO4: Learn deep learning models.

CO5: Understand the language and fundamental concepts of NLP, Speech

Principles of Management and Organizational Behaviour

CO1: Define the organizational functions, tasks management responsibilities.
CO2: Understand basic Organizational Structure.

CO3: Describe the system and process of Controlling

CO4: Understand Behavior responses to Global.

CO5: Understand Stress, Managing Stress.

Web Mining

CO1: Implement web search concepts and methods to return documents automatically based on user queries.
CO2: Design and implement a crawler application to collect and index documents from the web.

CO3: Design computational methods to classify documents by topic.

CO4: Use distance metrics to compute the similarity of pairs of documents.

CO5: Create a system to collect and analyze streaming data.

Big Data Analytics LAB

CO1: Able to Install and Setup Hadoop

CO2: Able to Write Map Reduce program to count the occurrences of words in an input file.

CO3: Able to Install and configure Hive

CO4: Able to Install and configure Pig

CO5: Able to Install and configure Hbase

Deep Learning LAB

CO1: Able to Write Program on perceptron

CO2: Able to Write Program on feed forward neural network

CO3: Able to Write Program on convolutional neural network

CO4: Able to Write Program on activation function

CO5: Able to Write Program on optimization methods

NIZAM COLLEGE
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Department of Microbiology

General Microbiology

CO1: Students will get basics and importance of Microbiology.

CO2: Theory & practicals of Microscopy.

CO3: Theory & practicals of staining.

CO4: Theory & practicals of sterilization.

CO5: microbial and virus structure.

Microbial Diversity

CO 1: This paper will provide basis to understand microbial diversity.

CO 2: Topics covered will be helpful in remaining courses.

CO3: Microbial biodiversity will be useful in research and

CO4: Study of ecosystem related problems.

Food and Environmental Microbiology

CO1: Basics of food microbiology will help in food and beverage industry

CO 2: Also help in disease control

CO 3: Help in treatment of disease

CO 4: Study Air, water and soil microbiology

CO 5: Help in environmental research

Hematology

CO 1: Teaches students about blood collection

CO 2: Gives knowledge about blood grouping

CO 3: Applications in pathological laboratories

CO 4: Teaches about blood transfusion

Medical Microbiology & Immunology

CO1: It provides knowledge of pathogenic microorganisms, their characteristics,

CO2: Pathogenesis and control of microbes

CO3: Student can safeguard themselves & society

CO4: Work in diagnostics and hospitals.

CO5: Immunology plays an important role in Diagnosis

CO6: Prevention of diseases

CO7: Control of diseases

Mushroom Cultivation

CO1: Students have scope in Mushroom Cultivation Industry

CO2: Gives knowledge about health benefits of mushroom

CO3: Teaches about mushroom preservation

Microbiology And Human Health

CO 1: It provides knowledge of pathogenic microorganisms related to human health.

CO2: Helps understand about pathogenesis and prophylaxis.

CO3: Teaches students about safe disposal of waste

CO 4: Treatment of waste which will be useful for the society and environment

Microbial Omics

Structure of DNA & RNA, next generation sequencing. Proteomics, protein engineering, Genomics and bioinformatics and molecular databases. FASTA, BLAST and primer designing.

CO 1: Students will gain knowledge about Proteomics and Genomics

CO 2: Help students in further studies and Proteomic research.

CO 3: Students with this exposure can work in biotechnology

CO 4: Application in genetic engineering etc.

Industrial Microbiology

Explains History, screening, media, Fermentation, assays with examples of industrially important processes.

CO1: It makes students self-reliance in the industrial microbiology

CO2: Application of Microbiology in life and industry.

CO3: Entrepreneurship can be established with the gained knowledge.

Department of Persian

CO1: Know the alphabets of the language and structure formation of word and sentences.

CO2: Know the Grammer of the language and its uses.

CO3: Know the simple word translation, process and its Technique.

CO4: Know the life and poetry of the authors

CO5: Describe basic concept of language

CO6: Analyze Tense, Verbs and a sentence

CO7: Greater proficiency in speaking, listening comprehension.

Department of Political Science

Western Political Thought I

CO 1: The course introduces to the student the Political Thought processes and Theory making in the West. From the Greek Political thinkers to down the ages including Utilitarian's, this course introduces the student to the richness and variations in the political perceptions of Western Thinkers.

CO 2: It provides a foundation to students of Political Science in familiarizing themselves to the Western Theory and Philosophy.

CO3: It particularly focuses on the evolution of the idea and institution of State in the West. It covers ancient, medieval and early modern thinkers.

International Relations-I

CO1: The purpose of this course is to familiarize the students with some of the broad themes in the study of International Relations

CO2: It introduces the students to the evolutionary history of International Relations as a distinct discipline and provides them with the theoretical and conceptual dimensions of the subject.

CO3: The course concludes with a description of contemporary history from the pre–Cold War to the post-Cold War era and goes on to describe the globalization process. Its aim is to enable the students gain a theoretical understanding of world politics.

CO4: The course helps Indian as well as foreign students alike in understanding International Relations as part of Political Science from a global, theoretical and discipline centric perspective, serving its purpose as a foundation course.

Indian Political System

CO1: This Course on Indian Political System introduces a student to the Constitution of India and the Institutions in their historical and contemporary context.

CO2: It brings out the various dynamics of the Institutions at Central and State level. It gives an understanding of the functioning of Parliamentary system in the Country.

CO3: The course mainly emphasizes on four aspects 1) The historical legacies leading to the making of the Indian Constitution; 2) It explains the basic ideals and concepts of the Indian Constitution; 3) It discusses about the organization of the state and working of the political system; 4) Lastly, it deals with Federalism and Panchayati Raj institutions.

Political Sociology

CO1: The course introduces students to the dynamics between Sociology & Political Science and explains the mutual impact of Political Science and Sociology in influencing Politics & Society.

CO2: The course introduces important concepts and theories that deal with the subject.

CO3: It focuses on nature of political power, the cultural dimensions of politics, dynamics of political change, the manner in which political power intersects with social structures, and the determinants of political upheavals and revolutions.

South Asia

CO1: South Asia is one of the regional systems which arrived late on the global political and economic scenario. Since its transformation in to a regional organization it is struggling to move forward due to asymmetries in terms of geography, political system, demography, scale of economy and pluralism.

CO2: It also suffers from internal contradictions due to divergent perspectives on issues common to all the members. Since it has to go a long way, serious study is to be carried out by universities and civil society organizations.

CO3: The course is designed to make students to know the South Asian region in a greater detail. The future of one's own destiny is intertwined with the future of others in the region.

CO4: Scope for research in the area is bright as a number of foundations are coming forward to finance the studies in the region. As policy Planning Division of the Ministry of External Affairs

is contemplating to recruit area specialists with deeper knowledge due to inadequate staff, opportunities may arise in near future for the students.

CO5: The students may get a chance in joining the think tanks after completion of the course.

Political Ideologies

None can dispute that abstract ideas to govern human behaviour.

CO1: Politics constitute a most important element in that realm. While ideas are not in and of themselves ideologies, they are part of the raw material needed to produce a full-fledged ideology.

CO2: As will be seen below ideologies have special qualities that set them apart from other political entities. When combined with other factors such as effective leadership, persuasive rationale', timely development, and popular appeal political ideology goes a considerable distance in the direction of comprehending things political.

CO3: Nature of Political Ideologies has been called "immaculate perceptions" of animperfect reality. This may also be applicable to the concept of political ideologies.

CO4: The students of political science will get enriched by studying Ideologies as it enhances their analytical skills of public phenomenon.

Regional Organisations

CO1: This course is offered to familiarize students with International Relations background with issues of Regionalism and Functionalism.

CO2: It teaches the significance of Regionalism from a theoretical perspective; provides a brief historical overview of the origin and evolution of several regional organizations; their challenges and the areas of concern.

CO3: The last unit provides students with India’s interaction with several of the Regional Organizations. This is a Course with immense potential in the political, economic, business and trade offices of the Corporate and Ministries.

SEMESTER II

Western Political Thought–II

CO1: Having covered the early modern political thinking in the first part of Western Political Thought in the first semester, it goes on to give further understanding on the later part of modern times particularly the 20th century political thinking in variety of ways.

CO2: Beginning with Hegel and enlightenment, the course explains how two major political ideologies- Liberalism and Marxis mare juxtaposed and interjected during the rest of the period. Finally, it also explains, how these two thought frames have come to face challenges in the later part of 20th Century and reoriented themselves which resulted in new frame of things such as New Right or Neo Liberalism and on the other hand, Marxism gave way to New Left, Post structuralism or even Post Modernist ideas.

CO3: The Course is rich in so far as understanding such crucial issues and concepts as rights, equality, liberty, freedom, constitutionalism, community rights, multiculturalism, democracy, social justice, identities, hegemony and dominance, importance of civil society etc. The Course equips the students with the most current understanding of thought processes.

International Relations II

COI: This is a second part of the course on International Relations. The content aims at enabling the students to develop critical understanding of issues in the contemporary International Relations.

CO2: Like the previous course, it offers divergent perspectives on various contemporary issues and provides the basis for the students to undertake further studies and research in International Relations. After undergoing the course, a student will be in a position to better the explain different phenomenon in International Relations

Indian Political Process

CO1: This course emphasizes on processes such as Party Politics, Electoral Politics, and Identity Politics and soon.

CO2: The course opens up the debate on nature of the Indian State to understand the political processes. The course maps the Indian Political processes with major issues such as Communalism, Extremism, Regionalism and issues related to autonomy. It also attempts to capture the changing State- Civil Society relations.

CO3: The course also discusses small parties that emerged in the context of rise of civil society. Another major development that occurred in the political process has been a significant change in the leadership and its association with media. The leader-centric politics and its association with media has become a ubiquitous phenomenon across the country. The course is also sensitive to the factors that led to intense competitive electoral politics.

Political Economy

CO1: This course explores the linkages and relationships between Economics and Politics. It provides an exposition to the students on the evolution of politico-economic ideas from classical period to modern era.

CO2: It deals with various economic structures and ideas of development and their impact on political processes.

CO3: The course provides evolution of different streams of economic ideas and their political contexts from the beginnings of capitalism to the contemporary era. It addresses the issues of market mechanisms, development and underdevelopment and the process of globalization from the perspective of Liberal, Marxist and Neo-Marxist analysis and in the last section it lays an emphasis on developing countries and issues of development.

Peace And Conflict Studies

CO1: Post-World war transformation has changed the nature of not only world politics but also the study of peace and conflict in the international system. Peace and Conflict as concepts are being studied as Wars are replaced by Conflicts. Efforts are made to theorise Peace and realizing it within States, among States and at the global level.

CO2: A lot of research on importance of realizing Peace and resolving Conflicts has been going on with the publication of number of periodicals.

CO3: This course is designed to develop conceptual, theoretical and analytical skills of students regarding Peace and Conflict. Study of the course enables a student to prepare himself to face any situation and to make right decisions and to create peace within communities and come out with proposals suggesting alternatives in realizing the larger goal of peace in the international system

CO4: The course may provide an opportunity to join with NGOs working on conflict resolution.

Panchayati Raj In India

CO1: The course deals with the perspectives of decentralization, institutional aspects, models of Panchayati raj in Kerala and Telangana and the present complexities. Some of them include the processes of decentralization that emerged with the introduction of new sets of governance such as Self-Help Groups (SHGs), Parallel Bodies. Further, the course seeks to bring back the debate on the important goals of Panchayati raj - democracy and development.

CO2: The course is marked with three phases – pre and post amendment phases and the third phase covering the contemporary conflicts between Panchayati raj and parallel bodies emerging from the rural governance framework. It is designed in such a way that it would throw light on the dynamics of Panchayati Raj System in conjunction with structural changes at the macro level in terms of market reforms and policy shifts at the national level.

International Law

CO1: This course is an introductory course on International Law for Political Science students. It introduces the basic concepts that a student should know about the international dimensions of law, as an extension of International Relations.

CO2: It aims to provide the necessary knowledge to understand the limitations and potentials of international law in the context of the globalized international relations. The objective is to make students conversant in international law and able to develop a critical appreciation when confronted with the reality.

CO3: The learning outcomes by the end of the course are: 1). Understand the basic doctrines and concepts of International Law; 2) Critically discuss the limitations and potentials of International Law and 3). Analyse contemporary international issues from the perspective of international law.

SEMESTER III

Paper 1: PS301: INDIAN POLITICAL THOUGHT-I (Core Paper)

CO1: Political ideas are basis for the strength of any political system. They reflect diverse spectrum of times in a country. India is no exception to this.

CO2: The course on Indian Political Thought provides an opportunity to a student to know the political ideas in ancient, medieval and modern periods reflecting India's diversity, pluralism in social, political and economic spheres.

CO3: The ideas contain classical as well as modern approaches to the issues in existence in the Indian society. These ideas aim at realizing socio-political transformation. The ideas of modern Indian thinkers also resemble western political ideas also. At the same time, they reflect a critique of older native system that had been in existence for centuries and articulate the ideals of equality and justice.

Comparative Government and Politics

CO1: The course is intended to offer theoretical and methodological issues in Comparative Politics. It seeks to enhance the students' understanding of politics, state, government, democracy, development, civil society, parties and interest groups, social movements from a comparative perspective.

CO2: The course seeks to examine the diversity of political systems in contemporary world, the historical evolution of State: its political economy; key political institutions; mode and extent of representation and participation; current and future dilemmas; place in the world system and the key factors such as globalization that influence the functioning of the political systems.

CO3: The key issues and categories of Comparative Politics are examined in the light of experiences from the Western and non-Western political systems such as United States, Britain, Canada, France, India, and China.

Government and Politics of Telangana

CO1: In the wake of formation of new state, Telangana State, it is an imperative on the part of the Department to start a Course on the Government and Politics of Telangana.

CO2: It provides understanding on the historical processes, the agencies and social forces that contributed to the formation of state. However, not to lose sight on the political practices of the institutions in the erstwhile Andhra Pradesh that discriminated against Telangana region, it also focuses on the politics processes of those times.

CO3: It provides to the students rich understanding on the different dynamics of the state formations and shaping of governance in the state currently.

Policy Studies

CO1: In contemporary times, to address complex and dynamic issues governments are formulating policies find solutions to societal problems from different ideological perspectives. A lot of technical expertise is becoming a necessity to understand and analyze issues and to suggest possible alternative solutions based on cost benefit analysis.

CO2: In this context there is a need to conduct serious research on public issues by policy experts from Policy Science perspective. Public Policy course aims at providing a comprehensive view of issues, policy making processes, decision making related to policy matters.

CO3: It also aims at producing experts who can advise the government or who can provide inputs to government in policymaking.

Women's Studies

CO1: This Course attempts to provide the significance of gender studies and Women's studies to students of Political Science.

CO2: It deals with: Women's Movements globally and in India; Provides the necessary theoretical perspectives; major issues in women's studies and in the fourth and final unit provides empowerment policies in India.

CO3: Another area with immense potential for further research in nongovernmental sectors, both nationally and globally.

Social Movements in India

CO1: On This course has been taught for long in the department. The course content has undergone many mutations along the changing nature of the social movements.

CO2: It covers from the conventional forms of social movements to the present identitarian movements, from class-based peasant movements to the present farmers movements.

The is sensitive, not only to processes of the movements, but also to the ideological frameworks of them- Leftist, Liberal and identitarian.

CO3: The Corse is designed to cover most current developments in civil society, state, economic spheres

Security Studies

CO 1: Security Studies course enables students to gain insights into the field from a developed as well as developing world perspective.

CO2: Units II & III elaborate on the different approaches to the field and the last unit deals with traditional and emerging issue areas.

CO3: Paper prepares the final semester students for advanced courses in research or move towards voluntary sector and consultancy in the emerging areas. Employment opportunities are abundant in Think tanks, embassies, Ministries, investigation agencies and business houses.

CO4: This course is useful for both Indian and Foreign students.

INDIAN POLITICAL THOUGHT-II

CO1: Political ideas are basis for the strength of any political system. They reflect diverse spectrum of times in a country. India is no exception to this.

CO2: The course on Indian Political Thought provides an opportunity to a student to know the political ideas in ancient, medieval and modern periods reflecting India's diversity, pluralism in social, political and economic spheres. The ideas contain classical as well as modern approaches to the issues in existence in the Indian society. These ideas aim at realizing socio-political transformation.

CO3: The ideas of modern Indian thinkers also resemble western political ideas also. At the same time, they are reflecting a critique of older native system that had been in existence for centuries and articulate the ideals of equality and justice.

India's Foreign Policy

CO1: A student of this course studies India's Foreign Policy; its determinants; the role played by different institution in the policy formulation as well as implementation. Further, the student evaluates India's relations with neighbors as well as with global powers. Critically, the course provides a comprehensive understanding of India in the global theatre.

CO2: It provides greater scope for employment in the policy planning divisions of Ministries as consultants and researchers.

Research Methods for Political Science

CO1: The course provides Social Science research perspective to the students. It offers various research methods (both qualitative and quantitative) used in Social Sciences and Political Science by drawing upon a range of theoretical and empirical research questions that are prevailing in Social Sciences.

CO2: The theoretical aspects of the course will comprise an exploration of various theories, concepts and terms that are part of the Research Methodology.

CO3: The empirical aspects will provide a broad understanding of various research methods and techniques, besides dealing with the practical realm of research.

Human Rights

CO1: This is an introductory course on Human Rights from a historical and political perspective. As an interdisciplinary elective, it introduces the students to the theoretical perspectives, provides them global and national level, institutional level and developmental mechanisms.

CO2: The last Unit is India specific and promotes a student's employment potential in voluntary sector, Media and teaching profession. Additional qualifications by way of diplomas in Human Rights, Media Studies, in the field of Lawand Education are helpful to students.

Paper IV(B): PS404B: GLOBAL ENVIRONMENTAL POLITICS (Elective)

CO1: Origin of the Environmental issues in International Relations can be traced at the global level to the Stockholm Conference. Therefore, it is imperative to study the global environmental issues to understand the national environmental policies.

CO2: This course, arranged into four units starting with basic environmental concepts and problems; Unit two discusses about the global environmental governance.

CO3: In Unit three it explains about contemporary global environmental regimes. Lastly, it deals with issues of Environment and Development, Human Rights and Justice. This is a course with great potential for employment in the government and the voluntary sector.

Administrative Theories & Concepts

CO1: This paper aims to make student aware about different theoretical perspectives on Public Administration.

CO2: In this context there is a need to introduce different concepts and principles of administration to the students. Further its relevance to be explained through historical evolution of the subject.

CO3: In this regard the paper introduces different classical and contemporary thinkers and their ideas to students. The outcomes are to be assessed through its multidisciplinary manifestations.

Ambedkar Studies

CO1: The paper is in tune with the debates on Dr.Ambedkar, emerging in the last few decades and beyond.

CO2: The course specifically addresses an important question in Philosophy drawn on the issues around 'universal' and 'particular.'

CO3: In this context, Dr. Ambedkar is sought to be understood as a philosopher who seeks to synthesize universal and particular. In the same wane, the course discusses Ambedkar, while being champion of Dalit cause, seeks to transform the society on principles of equality and justice.

CO4: The paper specifically seeks to discuss Dr. Ambedkar's life in the company of his ideas on social, economic and political spheres. His life is portrayed in terms of his experience with untouchability, his exposure to liberal ideas in the west and his engagement with the political practices in India during nationalist movement. His ideas on annihilation of caste, critique of Hinduism and his journey to Buddhism are extensively discussed.

CO5: The Course also includes his ideas on property and socialism. Lastly and importantly the paper takes a serious look at Dr. Ambedkar's vision of nation-state. This course is designed with the understanding that the students should be able to understand the various ideas and philosophy of Dr. Ambedkar and should be helpful in resolving various problems in the society.

Department of Psychology

General Psychology

CO 1. To familiarize students about the field of Psychology and give them the necessary exposure to develop interest in the field thus to prepare them for post-graduate programme in psychology.

CO 2. To appreciate and explain the vast branches and emerging fields of psychology for professional application.

Personality theories and Assessments

CO 1. To introduce the basic behavioural processes underlying Human Behaviour.

CO 2. Introduce the different theorist to explain behaviour and influence on behaviour

CO 3. Identify critical area of personality development

Social Psychology

CO1. To familiarize students the process of human development and various developmental changes from biological, psychological and socio-cultural perspectives.

CO2. Identify the respective areas of social context and influence of behaviour

CO3. Awareness Social stigmas mental sets like attitude formation and change prejudices and social discrimination and change in the human behaviour.

Abnormal Psychology

CO 1. To introduce students the abnormal behaviour and the various components that promote health through papers such as Abnormal Psychology and Health Psychology.

CO2. Understanding the critical area of DSM V and ICD 10 will help students identify the mental disorders.

Child and Educational Psychology

CO1: To make the students to understand the different aspects of human behaviour from child perspective.

CO2: Allows students to establish the connection between the children and behavioural problem.

CO3: Allows students to understand the educational perspective in a school, teacher student, curriculum relation and influence on behavioural process of student.

Adolescence and health Psychology

CO1: Understand the adolescent behaviour from behavioural perspective

CO 2: Understand the risky behaviours of an adolescent and influencing factors

CO3: Helping students to understand the importance of change in behaviour

CO4: Help understand the criteria of personality leading to career development.

CO5: Help understand the health and illness behaviour

CO6: Help understand the core component of stress and importance of coping

CO7: understand the resilient techniques with behavioural phenomenon

CO8. To familiarize students the basic aspects in Experimentation, Psychological testing, Research methodology and Statistics.

Department of Sociology

Basic Concepts and Perspectives in Sociology

CO1: Describing Nature, Scope and Origin of Sociology

CO2: Understanding the methods in Sociology and contributions of Founding fathers of Sociology

CO3: Elaborating on basic concepts in Sociology, social structure, social system

CO4: Elucidating various types of groups, culture and various concepts in connection with culture.

CO5: Describing the various socio-cultural processes and influence of heredity and environment on Personality

CO6: Holistic understanding of Functional, Conflict and Symbolic Interactionist Perspective.

Indian Society and Culture

CO1: To elaborate on perspectives on Indian society

CO2: Understanding Historical Moorings of the Indian Society, Purusharthas, Ashrama Dharma and Fourfold Varna System; Impact of Buddhism, Islam and West; Factors of continuity and change

CO3: Describing Stratification System in India including Caste and Class (Agrarian and Industrial class structure)

CO4: Elucidating the problems of Indian Society (rural and urban)

CO5: Elaborating on social institutions like Marriage, Family and Kinship among various religious communities; Decline of Joint Family System – Causes and Consequences

CO6: Describing the types of Mobility; Open and Closed Models, Factors and Constraints to Social Mobility

CO7: Analysing the social change in Modern India especially through the processes of Modernization, Sanskritization, Westernization and De- Sanskritization

Research Methodology

CO1: Understanding Sociology as a science, concepts and steps in research

CO2: Differentiate between the Quantitative and Qualitative Research and understand different types of Research Design

CO3: Understand the various techniques of Data Collection- Observation, Questionnaire, Interview Schedule; Case Study, Social Survey, Content Analysis

CO4: Describing various types of Sampling

CO5: Elaborate on Data Processing and Data Analysis

CO6: Calculation of measures of central tendency – Mean, Median and Mode; Graphic Representation: Bar Graph and Histograms

CO7: Writing research reports

Sociology of Development and Planning

CO1: Elaborating the concepts of Development and Underdevelopment:

CO2: Describing the Concepts and Indicators of development; Human Development and Economic Growth; Concepts of Social Development, Economic Development, and Sustainable Development

CO3: Explaining the theoretical Perspectives on Development and Contemporary critical perspectives on development.

CO4: Understanding the role of International Institutions (World Bank, IMF, WTO, ILO, UNO, UNICEF) in Development Policies

CO5: Interface between Democracy and People's participation for development; Modernization, Globalization and Development.

CO6: Describe Development, Migration and Displacement

CO7: Elaborate on victims of development, Rehabilitation and Resettlement – Role of Civil society and NGOs. SEZs/AEZs and Development.

CO8: Describe the concept Social and Economic Planning; Five Year Plans; Intervention Programmes for development.

Principles of Social Anthropology

CO1: Elaborate on meaning, scope and branches of Social Anthropology

CO2: Explain the meaning, characteristics and geographical distribution of Tribes in India

CO3: Describe the concept, characteristics of Culture and Cultural Processes-Diffusion and Evolution.

CO4: Analyse the social institutions in terms of types and functions

CO5: Understand Tribal Economy, Religion and Magic

CO6: Analyse Tribal Problems, Law and Justice – Exploitation of Tribes, Land Alienation and Displacement; Problems of Health and Nutrition

CO7: Identify the Constitutional Provisions and measures for Tribal Development in India

Industrial Sociology

CO1: Describe the Nature and Scope of Industrial Sociology; Growth of Industrialization, Industrial Revolution and its impact on Society

CO2: Elaborating on Changing Structure of modern Industrial enterprises and principles of Organization – Formal and Informal

CO3: Understand Scientific Management of F.W. Taylor, Human Relations Approach of Elton Mayo

CO4: Elaborate Human Relations in Industry; Fordism and Post-Fordism

CO5: Describe Trade Union Movement in India; Workers Participation in Management and Collective Bargaining.

CO6: Explain Industrial Conflicts and means of Settlement of industrial Disputes

CO7: Understand Labor Problems – Absenteeism, Alcoholism and Alienation;

CO8: Identify Labor Welfare Schemes and role of ILO

CO9: Understand Impact of Globalization on Industry and Labour.

Social Demography

CO1: Explain Nature and Scope of Social Demography.

CO2: Elaborate on Sources of Demographic Data - Census, Vital Registration, Sample Surveys and Population Registers.

CO3: Describe Population Theories - Malthusian Theory, Demographic Transition Theory.

CO4: Analyse the Composition of Population in India and the trends in population growth in India.

CO5: Describe Population Processes and types, factors and consequences of Migration.

CO6: Understand the Population Policy (UN and India), Family Planning and Family Welfare;
CO7: Explain Population Education.

Philosophical Foundations and Applications of Sociology

CO1: Explain the Philosophical Foundations of Sociology (Positivism, Empiricism, Ethnomethodology, Phenomenology)

CO2: Describe the contributions of contributions of Founding Fathers - August Comte, Herbert Spencer, Karl Marx, Emile Durkheim and Max Weber

CO3: Understand about Applied Sociology and relation between Sociology and Social Policy; Sociology and Professions

CO4: Elaborate on Participatory Development, Need and Advantages of social participation

CO5: Elucidate Community Development and Community Organization, Group Formation and Social Action

CO6: Explain Capacity Building Measures; Action Research and Evaluative Research

CO7: Describe Participatory Rural appraisal – Meaning, Principles and Techniques

CO8: Understand Counseling- Meaning, Types and Methods

Principles of Sociology

CO1: Elaborate on Nature, Scope, Emergence, Importance of Sociology

CO2: Describe relationship between Sociology and other social sciences; Theoretical Perspectives in Sociology

CO3: Explain basic concepts of Society; types of society, culture and Groups

CO4: Elaborate social Interaction, Social Processes and socialization

CO5: Discuss social institutions

CO6: Explain social stratification and its theories; Means and agencies of social control

CO7: Describe Social Change – Theories and Factors of Social Change

Classical Sociological Theories

CO1: Assess Social and Sociological Theories; Phenomenon and Perspectives; Influence of Industrial and French Revolution on Sociological thought and contributions of August Comte

CO2: Describe the contributions of Herbert Spencer, Vilfredo Pareto and Thorstein Veblen

CO3: Analyse Life & Major Works of Karl Marx

CO4: Explain contributions of Emile Durkheim

CO5: Elaborate on contributions of Max Weber

Research Methodology – Social Statistics and Computer Applications

CO1: Understanding Sociology as a science, Scientific Method, Concepts and Steps in Research

CO2: Differentiate between the Quantitative and Qualitative Research and understand different types of Research Design

CO3: Understand the various techniques of Data Collection- Observation, Questionnaire, Interview Schedule; Case Study, Social Survey, Content Analysis

CO4: Describing various types of Sampling

CO5: Elaborate on Data Processing and Data Analysis

CO6: Calculation of measures of central tendency – Mean, Median and Mode; Graphic Representation: Bar Graph and Histograms.

CO7: Understanding and calculating Quartile, Decile, Percentile. Measures of Dispersion: Range, Skewness, Kurtosis, Standard and Mean Deviation

CO8: Measures of Association/Relations: Correlation and Regression. Measures of Testing of Hypothesis, writing research reports

Industrial Sociology

CO1: Elaborate on Definition, Nature and Scope of Industrial Sociology

CO2: Explain Growth of Industrialization, Industrial Revolution and its Impact on Society, Changing Structure of Modern Industrial Enterprises, Principles of Organization - Formal and Informal

CO3: Describe Sociological Theories related to Industry and Society

CO4: Write about Trade Union Movement in India

CO5: Explain Industrial Disputes and Settlements

CO6: Describe the Labour Problems; Role of ILO and Commitment and Motivation of Workers.

Rural and Urban Sociology

CO1: Explain Nature and Scope of Urban Sociology; Differentiation and Continuum of Rural urban

CO2: Understand relation between Urbanization and Industrialization

CO3: Describe Social Structure of Rural & Urban Communities

CO4: Analyse major theoretical Perspectives in Urban Sociology and Patterns of Urban Growth – Urban

CO5: Describe rural economy in India-Rural Development Initiatives; Urbanization and Industrial growth

CO6: Explain Village Governance during pre- and post-independence; Panchayati Raj System: its impact on Rural India-Land Reforms – Liberalization

CO7: Describe Globalization, Rural Unrest – Suicides of farmers and weavers

CO8: Explain the concept of City/Town Planning and Urban Problems –

CO9: Describe National Urbanization Policy in India

Modern Sociological Theory

CO1: Explain Functional and Middle Range Theories of Talcott Parsons and Robert Merton

CO2: Elaborate on Conflict theory of CW Mills and George Simmel

CO3: Present an Overview on Neo-Marxism with specific contribution of Antonio Gramsci, Althusser and Nicos Poulontzas

CO4: Describe the contributions of Charles Horton Cooley; George Herbert Mead, Herbert Blume, George Homans, Peter Blau with reference to Symbolic Interactionism and Exchange theory

CO5: Explain the contributions of Anthony Giddens, Alfred Schutz, Harold Garfinkel, Husserl and Goffman

Social Stratification and Social Mobility

CO1: Explain dimensions of Social Differentiation and Social Stratification; Principal types of stratification systems: Caste, Class, Estate and Gender

CO2: Present theoretical perspectives with reference to social stratification

CO3: Describe Caste and Class

CO4: Elaborate on relationship between social stratification and mobility; types of social mobility; Social and Occupational Mobility, Gender and Social Mobility and factors of mobility.

CO5: Describe Reference Group Theory and Mobility

CO6: Write about Sanskritization and De-Sanskritization, Modernization, Westernization and Islamization

Qualitative Research and Participatory Learning & Action (PLA) Techniques

CO1: Explain importance and scope of Qualitative Research

CO2: Differentiate Qualitative and Quantitative Research

CO3: Explain methods of Qualitative Research

CO4: Explain Participatory methods

CO5: Describe principles and methods of Participatory Learning & Action

CO6: Understand PLA fieldwork

CO7: Identify Development Issues & Challenges

CO8: Describe Data Processing and Analysis; Developing Research Plan and Presentation of Report.

Social Demography

CO1: Explain Nature and Scope of Social Demography

CO2: Describe Population Theories (Malthusian Theories, Demographic Transition Theory, Optimum Population Theory)

CO3: Composition of Population in India and trends in population growth

CO4: Describe Population Processes (Fecundity, Mortality, Migration)

CO5: Understand Population Policy (UN and India); family planning and family welfare; Population Education; National Rural Health Mission

Science, Technology and Society

CO1: Explain Sociology of Science and Historical and social context of scientific knowledge .

CO2: Describe Technology, Society and Historical Change

CO3: Identify Social Consequences of Technology

CO4: Elaborate Methods in Science: Inductivism and Falsification.

CO5: Understand Sociological Perspectives on Scientific practice: Marx, Durkheim, Mannheim & Merton.

CO6: Understand Thomas Kuhn's, Paradigm of Science

CO7: Present Ben David institutional perspective and post Kohnian Sociology of Science; Diane Krane's Communication and international Model – Notion of Techno-Science.

CO8: Analyse the information Technology paradigm and Network Societies

CO9: Understand impact of Information Technology on Society; interface between Bio Technology, Society and Sustainable Development

CO10: Elaborate the relation between Nano Technology, Development and Social Change

CO11: Explain approaches to the environment and sustainable development

Contemporary Sociological Theories

CO1: Explain events and thinkers of Pre-Modernity

CO2: Describe The Project of Modernity; Classical theories and Contemporary Theories.

CO3: Present critique of Modernity and New Philosophy of Science

CO4: Understand critical Theory, Theory of World, Communicative Action

CO5: Describe the Idea, Conditions and theory of Post Modernity

CO6: Present Critique of Post-Modernism

Sociology of Development

CO1: Explain Conceptual Perspective on Development

CO2: Describe Theories of Development.

CO3: Identify paths of Development

CO4: Describe interrelationship between social Structures and Development

CO5: Identify and analyse Development Issues in India

CO6: Describe Development Planning and Policies

Indian Society, Structure and Change

CO1: Explain Approaches to the Study of Indian Society:

CO2: Describe Ethnic Formation of Indian Society; Unique Vs. Mosaic Theory of Indian Society

CO3: Elaborate on foundation of Indian Social Organization

CO4: Describe Caste features and Theories of Origin of Caste

CO5: Analyse Economy and Polity of Kautilya and Foundations of Adwaitha, Dwaitha, Visistaadwaitha, etc

CO6: Explain Advent of Islam and Zoroastrianism; Sufism and Bhakti Movements; Colonial Period: Advent of British and Christianity

CO7: Describe the emergence of Modern Structures and Classes

CO8: Contributions of Indian and European thinkers

CO9: Explain Post-Colonial Development: Indian Constitution and its Idea of Democracy

CO10: Describe Planning and Development; Tensions and Conflicts in India; Globalization and Emerging Trends.

Gender and Society

CO1: Explain Gender in Sociological Analysis

CO2: Describe the relation between Social Structure and Gender Inequality

CO3: Understand theories and Perspectives of Feminism

CO4: Analyse the relation between Gender and Development.

CO5: Explain the Politics of Gender (Women's Movements in Pre-Independence and Post-Independence India, Current Women's Movements, Displacement and Eco-Feminism, Women Reservation as Socio-Political Issue)

Development, Management and Research

CO1: Explain the evolution of the concept of Development Management

CO2: Describe Participatory Development and fields of Development

CO3: Understand the development interventions – Role of State, Community based organizations and NGOs in the Development – Various actors implementing these interventions

CO4: Describe the Development Administration in India

CO5: Elaborate on Development Research (Qualitative Research and Quantitative Research

CO6: Understand Proposal writing for Development project and Evaluation of the Development Project outcomes

CO7: Explain Project Report writing and case studies writing

Sociology of Environment and Sustainable Development

CO1: Explain the concept of Environment and Society, Environmental Sociology

CO2: Describe issues and theoretical approaches of Environment and Ecology

CO3: Explain the interface between Technology, nature and society; Environmental Policy

CO4: Elaborate the Environmental Movements and the role of NGOs in Environmental Movements

CO5: Elucidate sociologist's view of sustainable development; Environmental Management

CO6: Identify Environmental problems and means for environmental awareness

Social Movements in India

CO1: Explain Social Movements and Types of Movements

CO2: Describe Reform Movements

CO3: Describe Radical/ Revolutionary Movements

CO4: Elaborate Regional Movements – DMK, Shiva Sena, Jharkhand, Telangana

CO5: Understand Environmental and Women's Movements

CO6: Explain the impact of Social Movements on Social Policy

Social Anthropology

CO1: Elaborate on meaning, scope and branches of Social Anthropology

CO2: Explain the meaning, characteristics and geographical distribution of Tribes in India

CO3: Describe the concept, characteristics of Culture and Cultural Processes-Diffusion and Evolution

CO4: Describe Cultural Theories: British, American and Chicago School of thoughts - Tylor, Malinowski and Benedict on culture

CO5: Analyse the social institutions in terms of types and functions

CO6: Understand Tribal Economy, Religion and Magic

CO7: Analyse Tribal Problems, Law and Justice – Exploitation of Tribes, Land Alienation and Displacement; Problems of Health and Nutrition;

CO8: Identify the Constitutional Provisions and measures for Tribal Development in India

Theory and Practice of Social work

CO1: Explain Social Work Profession, Philosophy and Ideology

CO2: Understand the Concept of Social Welfare, Social Service and Social Work; Objectives and Goals of Social Work Service: Development and Remedial.

CO3: Describe the Historical Development of Social Work in India

CO4: Highlight the emergence and Development of Social Work as a Profession

CO5: Describe Fields of Social Work Practice

CO6: Elaborate Research Process and Nature of Social Work Research; Role of Research in Social Work Practice.

CO7: Describe Social Work Research and Social Reconstruction.

Certificate Course in Human Relations And Personality Development

CO1: Explaining Nature and Scope of Sociology and Psychology; Significance in Human Relations and Personality Development

CO2: Understanding about Family, Marriage and Personal Life; Alternatives to family and marriage

CO3: Describing Culture, Society and the Individual- The interrelationship

CO4: Elucidating the role of motivation in life

CO5: Elaborating the nature and development of emotions; Managing the emotions- Anger, Anxiety and Depression

CO6: Explaining Nature and Functions of Personality, Factors affecting the personality; Components of Self Concept (Self-esteem, Self-confidence, Self- assertiveness)

CO7: Developing Positive attitude, Stress Management, Time Management and Conflict Management, enhancing creative thinking, Problem-solving and Decision-making skills.

CO8: Developing Communication Skills and Interpersonal Relationships; identifying the barriers to effective communication

CO9: Elucidating leadership, Traits of leaders, enhancing leadership qualities.

CO10: Importance of Group Dynamics and Team Building

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Department of statistics

CO1: Given a statistical data condensing, analyzing and interpreting.

CO2: understand given probability distribution and its statistical characteristics.

CO3: Analyze bivariate statistical (Probability distributions) correlation and regression also multiple and partial correlation for three variables.

CO4: Describe estimation theory and statistical inference.

CO5: Analyze economic data Viz time series data, demand and supply data and whole sale and retail price and quantity index numbers.

CO6: Solve mathematical linear programming problems, statistical quality control problems, econometric problems, and reliability.

CO7: Describe vital and Indian official statistics

CO8: Compute various statistical measures and executing various statistical tests and techniques using MS-Excel.

CO9: R software for learning basic statistics analysis and visualization and testing of hypotheses.

Department of Sanskrit

Sanskrit is a very rich language of IE language group. Sanskrit is a medium to know about ancient Indian history, culture, religion, social life through its text. The academic programme of both Second language and Classical Language courses are designed not only professional skill but also develop a deep understanding of rich heritage and dynamic prevalent scenario of India through various Sanskrit texts

CO1: Students will be able to know not only ancient literature and their classification but also modern Sanskrit literature.

CO2: They will be managing their cognition, emotive apparatus, confusion and conflict of mind.

CO3: They should general introduction of Indian Petrology and definitions and examples of various artharlankaras.

CO4: The students would learn about the ancient Indian Educational system and Polity, their nature, concepts through the texts of Dharmasastras and Arthasastra.

CO5: The students would know about the historical importance of Indian Epigraphy, Paleography, Chronology and Inscription.

CO6: They will be able to know the importance, propagation across the world of this language.

CO7: Students would know about the Ancient Sanskrit literature, their application, Language grammar, socio-cultural life.

CO8: Grammar is very important part of this language for the making of sentences, to know appropriate meaning of texts, oral communication and perfection.

CO9: Yogashastra and Dramatical literature should also help them to know the source of this syllabub's language and the relation between other languages.

CO10: The students will take the knowledge about of Indian philosophy, Philosophers and their thoughts. They could relate the philosophical theory in practical life.

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Department of Telugu

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Department of Zoology

Animal Diversity – Invertebrates

CO1: Describe general taxonomic rules on animal classification

CO2: Classify Protista up to phylum using examples from parasitic adaptation

CO3: Classify Phylum Porifera to Echinodermata with taxonomic keys

CO4: Describe Phylum Nematoda and give examples of pathogenic Nematodes

Animal Diversity – Vertebrates

CO1: Imparts conceptional knowledge of vertebrates, their adaptations and associations in relation to their environment

CO2: Classify phylum Protochordates to Mammalia

CO3: Complex Vertebrate interactions

Animal physiology and Animal Behaviour

CO1 Seeks to understand the mechanisms that work to keep the human body alive and functioning

CO2 Physiological and biochemical understanding through scientific enquiry into the nature of mechanical, physical, and biochemical functions of humans, their organs, and the cells of which they are composed

CO3: Interactions and interdependence of physiological and biochemical processes.

CO4: Understand Animal behaviour and response of animals to different instincts

CO5: Interaction of biota abiota

CO6: Various kinds of Animal adaptations

Cell Biology, Genetics & Developmental Biology

CO1: Structural and functional aspects of basic unit of life i.e cell concepts

CO2: Mendelian and non mendielian inheritance

CO3: Concept behind genetic disorder, gene mutations- various causes associated with inborn errors of metabolism

CO4: Basic concepts of developmental biology

Physiology and Biochemistry

CO1 : Seeks to understand the mechanisms that work to keep the human body alive and functioning

CO2: Physiological and biochemical understanding through scientific enquiry into the nature of mechanical, physical, and biochemical functions of humans, their organs, and the cells of which they are composed

CO3: Interactions and interdependence of physiological and biochemical processes

Entomology:

CO1: Imparts knowledge of beneficial and non-beneficial insects

CO2: Knowledge of how they interact with their environment, other species and humans

CO3: Classification of Insects

CO4: Role of insects in spread of diseases

Sericulture

CO1: Gives knowledge of silk worm rearing

CO2: Mulberry cultivation

CO3: Pests and diseases associated with silk worm and mulberry

CO4: Various process involved in silk production

Research Methodology

CO1: Understanding of scientific method, concepts and steps in research

CO2: Differentiate between the Quantitative and Qualitative Research and understand different types of Research Design

CO3: Understand the various techniques of Data Collection- Observation, Questionnaire, Interview Schedule; Case Study, Social Survey, Content Analysis

CO4: Describing various types of Sampling

CO5: Elaborate on Data Processing and Data Analysis

Immunology

CO1: Imparts in depth knowledge of tissues, cells and molecules involved in host defense mechanisms

CO2: Understanding of types of immunity

CO3: Interactions of antigens, antibodies, complements and other immune components

CO4: Understanding of immune mechanisms in disease control, vaccination, process of immune interactions

Clinical science

CO1: Gives knowledge related to the techniques involved in detection of various diseases

CO2: Pathology associated with various diseases

CO3: Practical skills of conducting basic clinical lab experiments

CO4: Application of knowledge of clinical science and pathology to one's own life

Animal biotechnology:

CO1: Imparts the Knowledge to culture animal cells in artificial media.

CO2: Knowledge of animal cells in culture, growth of cell lines

CO3: Use in recombinant DNA technology, genetic manipulations and in a variety of industrial processes.

Aquarium fish management

CO1: Provides knowledge of ornamental fish breeding which is highly professional and attractive avenue for youth

Project

CO1: Make research proposal.

CO2: Construct tool of data collection

CO3: Learn fieldwork modalities

CO4: Understand the process of data analysis

CO5: Writing research report (Dissertation)

Structural Biology [SB]

CO1: Allows the students to gain basic knowledge about various bio molecules and their role in metabolism

CO2: Classification of enzymes, enzyme kinetics

CO3: Metabolism of carbohydrates, nucleic acids and metabolic disorders

CO4: Gains understanding of cellular organization and functional biology of nucleic acids

Environmental and Conservation Biology [ECB]

CO1: Imparts knowledge to the student regarding environment and conservation biology.

CO2: Gains knowledge in the areas of responses to Laws of limiting factor, Law of minimum, Laws of Tolerance and Tragedy of commons

CO3: Types of ecosystems – freshwater, marine and terrestrial

CO4: Population characteristics and dynamics – conceptual approach

CO5: Growth curves and pyramids; sigmoid curve, J curve and hyperbola; logistic equation and concepts relating to growth

CO6: The students will be well equipped to become very competent in research or teaching fields after completion of this course

Immunology [IMM]

CO1: Provides basics knowledge about immune system and allows the student to create insight as how to improve their immune system and good health.

CO2: Types of immunity, antigens-antibodies and their properties

CO3: Complement system, MHC's and immune responses

CO4: Understanding of types of hypersensitivity reactions and auto immune diseases

CO5: Ability to understand concepts of tumor immunology and transplantation immunology

Taxonomy, Systematics and Functional Anatomy of Invertebrates [TSFAI]

CO1: Imparts knowledge regarding the various Invertebrates species and the regulatory processes to safeguard them

CO2: With the study of this paper students gain knowledge in the areas of responses to Systematic position, general organization and affinities of Ctenophora and Nemertea

CO3: Rhynchoceola; Systematic position, general organization and affinities of Rotifera;

CO4: Systematic position, general organization and affinities of Hemichordata

CO5: The students will be well equipped to become very competent in research or teaching fields after completion of this course

Tools, Techniques and Biostatistics [TTB]

CO1: Students gain knowledge about various tools & techniques used in biological systems and gives them insight about their use in research.

CO2: Biostatistics teaches them to use the best data analysis methods in their research projects

CO3: Students gains knowledge about statistical methods like measures of central tendencies, Probability

CO4: Learns about hypothesis testing and inferential statistics

CO5: Learns the problem-solving methods

Animal Physiology [AP]

CO1: Imparts knowledge about various metabolic and physiological mechanisms of the human body.

CO2: Understands about neurophysiology and receptors

CO3: Gain knowledge about hormones and bioluminescence

CO4: Understanding of stress physiology and endocrine mechanisms will allow them to control their stress and emotions there by diverting their energy towards the positive nation building activities

Molecular Genetics and Developmental Biology [MGDB]

CO1: Knowledge about genetics, developmental biology and organogenesis

CO2: Application of DNA technology and molecular biology for research

CO3: Gains knowledge about gametogenesis, cleavage mechanisms, gastrulation and role of hormones in metamorphosis and regeneration

CO4: Provides students insight into maintaining healthy relationships with their opposite gender and allows them to make right choice about their life partner thus preventing congenital/consanguial diseases.

Evolution and Functional Anatomy of Vertebrates [EFAV]

CO1: Imparts knowledge regarding the various theories of evolution, evolutionary process such as variation, speciation, natural selection, origin of primates and man

CO2: Understanding of origin and salient features of Ostracoderms to Actinopterygii, adaptive radiation of Amphibians, Reptiles, birds and Mammals

CO3: Gains knowledge of functional anatomy of vertebrates from fishes to mammals

CO4: Understanding of evolutionary significance of internal fertilization, neoteny and paedogenesis.

CO5: Identifies the significance of amniotic egg its structure and evolutionary significance of skeletal system

Systems Biology [SB]

CO1: Imparts knowledge regarding the various concepts of systems biology, systems approach and its application in biological systems

CO2: The structural biology paper is physiological chemistry of all the bio molecules.

CO3: The paper imparts thorough knowledge in the fundamentals of biochemistry of all the biomolecules like carbohydrates, proteins, lipids, nucleic acids, their classification structure and metabolism.

CO4: Understanding of Mammalian biological clocks, Sustainable pest and disease management and bioremediation

CO5: Develops skills of Insect outbreak models, Data formats, simulation techniques, modelling tools

CO6: Application, characterization and interactions of nano particles in biological systems

Research Methodology [RM]

CO1: The course provides wide knowledge about research, experimental & sampling design,

CO2: Data collection, analysis & interpretation of data and allows student to present the research data in scientific method

CO3: Gains skill to solve problems using inferential statistical tools

CO4: Learns to collect literature collection, literature citation, and components of research report – Text, tables, figures, bibliography.

CO5: Writing of dissertations, project proposals, project reports, research papers.

CO6: Intellectual Property Rights – Biopiracy, copyrights, patent and traditional knowledge and plagiarism.

CO7: Understanding of Laboratory safety measures, laboratory good practices, animal model systems, animal ethics- animal welfare guidelines for care and use of animals.

Comparative Animal Physiology I

CO1: Comparative animal physiology is a comprehensive subject that gives in depth knowledge of various physiological processes in the animal kingdom.

CO2: students gain knowledge about the comparative physiological concepts of nutrition digestion respiration excretion metabolism and osmoregulation.

CO3: Course provides students comprehensive understanding about neurobiology, neurophysiology, molecular neurobiology

CO4: Understanding of cognitive/behaviour neurobiology, thus allowing then to correlate the human behaviour under given situation.

CO5: It gives comprehensive understanding regarding inborn disorders and deranged metabolisms.

CO6: Students feel confident in teaching physiology as well as executing research projects

Comparative animal physiology- II

CO1: With the study of this paper students gain knowledge in the areas of responses to environment with study of receptors CNS integration of behavior

CO2: Understanding of the functions of effectors in all aspects as well as the circulatory physiology and reproduction and adaptations by animals to environment

CO3: The students will be well equipped to become very competent in research.

CO4: The course provides employability in teaching fields

Applied Toxicology

CO1: It is a discipline overlapping with biology, chemistry, medicine that involves the study of toxicants, their mechanism of action.

CO2: It involves the study of the adverse effects of chemical substances on living organisms.

CO3: Skill development in environmental and occupational Toxicology

CO4: It provides opportunities for students' research projects, internships in assessing the effects of toxic pollutants on the environment and in the food chain

Medical Entomology I & II

CO1: Medical Entomology is an integral part of applied ecology involving the study of diverse ecto and endoparasites

CO2: Understanding of fundamental complement of numerous diseases which have significant impact on human health

CO3: Understanding of Insect vector host interactions of many important diseases like Malaria, Filaria, Dengue etc.

CO4: Understanding of denudation of forests its results in increased human vector contact which have become almost irreversible.

CO5: Course gives insight into physiology, biochemistry and reproduction of insect vectors and their control measures.

CO6: Students gain knowledge about the concepts of overview of Entomology

CO7: Source reduction and environmental methods for vector control, biological control and other Insect bites

CO8: Knowledge of hormones and Insects

CO9: Students gets good insight into how Medical Entomology is acting as a promising factor for entomologist vacancies in both public and private sectors

CO10: Student gains knowledge regarding vector borne diseases their pathology, control measures, thus aiming at 'Swachh and Swasth Bharat'

CO11: Students feel confident in teaching Medical Entomology as well as executing research projects

Sericulture

CO1: Gives knowledge of silk worm rearing, mulberry cultivation, pests and diseases associated with silk worm, mulberry and various process involved in silk production.

CO2: It is an agro based cottage industry in India that enables them to get self-employment

CO3: Sericulture is a comprehensive subject that gives in depth knowledge of the study of silkworms both physiological as well as commercial purposes including the various processes involved in the formation of silk.

CO4: Students gain knowledge about various systems of silkworms, Harvesting of cocoons, Defective cocoons

CO5: Silk reeling and testing of silk

CO6: Students feel confident in teaching Sericulture as well as executing research projects

Animal Biotechnology [AB]

CO1: It gives insight into various cell/tissues culture techniques

CO2: Understanding of in vitro culturing of organisms and production of transgenic animals.

CO3: Understanding of cloning of mammals, large scale culture and production from recombinant microorganisms

CO4: Gains skills in medical, environmental biotechnology, biopesticides, Biotechnology of aquaculture and use of animals as bioreactors

CO5: This insight allows students to take into consideration about ethical issues involved in production transgenic animals and BT products.

Fish Biology [FB]

CO1: Course provides them comprehensive understanding about aquatic ecosystem and various economical important fishes.

CO2: Students gain knowledge in the areas of responses characterization and classification of Ostracoderms, placoderms, acanthodians, holocephali, elasmobranchs.

CO3: Students gain knowledge of integumentary system - basic structure of skin, dermal and epidermal pigments, fins, and scales.

CO4: Understanding of embryogenesis - Early development and post embryonic development

CO5: Understanding of fishes' habits and habitats and their functional anatomy

CO6: The students will be well equipped to become very competent in research or teaching fields

CO7: It is one of the small-scale industries which can provide the student employment opportunity.

Instrumentation and computer applications in biology

CO1: Understanding of basic concepts of instrumentation such as cell fractionation, homogenation and centrifugation

CO2: Students gain skills in techniques of chromatography, electrophoresis, spectroscopy and radioisotopes

CO3: Students gain skills in histological, immunological and electrophysiological techniques

CO4: Students gain skills in basics of computers, operating systems, overview of programming languages

CO5: Application of internet and statistical bioinformatics in research

Agricultural Nematology

CO1: Students gain knowledge of nematodes, their taxonomic importance, collection and fixation

CO2: Understanding of morphology of nematodes, life cycles, pathogenic and predatory nematodes

CO3: Understanding of feeding mechanisms of nematodes and nematode associations

CO4: Students gain skills of various kinds of nematode control measures.

CO5: Understand Animal behaviour and response of animals to different instincts

CO6: Interaction of biota abiota

CO7: Various kinds of Animal adaptations