

UNIVERSITY OF CALCUTTA
Syllabi for Semester 1 & 2 of B.Com. 4-year Programme
and B.Com. (MDC) 3-year Programme
Under NEP-2021

PROGRAMME OUTCOMES:

PO1 - Critical Thinking: After determining the presumptions that guide our thoughts and behavior, assessing their accuracy and validity, and considering our ideas and decisions (personal, organizational, and intellectual) from various angles, we can take well-informed action.

PO2 - Effective Communication: Make sense of the world by relating people, ideas, books, media, and technology. Communicate clearly in English and one Indian language both in person and through electronic media.

PO3 - Social Interaction: In group settings, elicit other people's opinions, resolve conflicts, and assist in reaching decisions.

PO4 - Ethics: Acknowledge the moral implications of your choices, acknowledge other value systems, including your own, and take ownership of them.

PO5 - Environment and Sustainability: Recognize the problems with sustainable development and environmental settings.

PO6 - Self-directed and Life-long Learning: Develop the capacity to learn independently and continuously throughout your life in the widest range of socio-technological changes.

Credit of the Paper 4
Semester-end Examinations: 75 marks
Tutorial Examinations: 25 marks
Total 100 marks

Course Outcomes (CO):

After completing this course, the student will be able to -

CO1. Remember the fundamental ideas and terms used in financial accounting.

CO2. Outline and illustrate the generally accepted accounting principles.

CO3. To determine the accounting treatment of different transactions, apply the Indian accounting rules that have been notified.

CO4. Differentiate between the many accounting rules and estimates that can be used to calculate business income.

CO5. Compile the financial statements of businesses

Unit	Topic	Details
1	Introduction	<ul style="list-style-type: none"> Nature of accounting; Users of accounting information; Qualitative characteristics of accounting information. Double entry book keeping system – Basic accounting equation, meaning of assets, liabilities, equity, revenue and expenses. Accounting Cycle - Recording of transaction: Journal, Ledger and preparation of Trial Balance. Bases of accounting; cash basis and accrual basis. Basic concepts and conventions: entity, money measurement, going concern, cost, realisation, accruals, periodicity, consistency, prudence (conservatism), materiality, matching and full disclosures.
2	Concepts for determination of business income	<ul style="list-style-type: none"> Concept of revenue recognition and recognition of expenses. Inventories: meaning. Significance of inventory valuation. Lower of cost or market rule; Inventory ascertainment and reconciliation.
		<ul style="list-style-type: none"> The nature of depreciation. The accounting concept of depreciation. Factors in the measurement of depreciation. Methods of computing depreciation: straight line method, diminishing balance and Units of production method; Disposal of depreciable assets; change in estimate and method of charging depreciation. Accounting for depreciation: Asset-depreciation, Asset-provision. Reserves and provisions: Meaning; Objective; Types & Accounting
		<ul style="list-style-type: none"> Capital and revenue expenditures and receipts: general introduction only. Adjustment (including goods with customers pending approval) and rectification entry

3	Final accounts of Trading Concern	Preparation of financial statements: of sole proprietorship business entities from a trial balance – Manufacturing, Trading, Profit & Loss Account and Balance Sheet
4	Financial statements of Not for Profit organisations and from Incomplete records	Preparation of Receipts & Payments A/c, Income & Expenditure A/c and Balance Sheet Transaction approach
5	Sectional and Self-balancing ledger	<ul style="list-style-type: none"> • Concept of sectional balancing, preparation of control accounts. Self-balancing Ledger: advantages; Recording process; preparation of Adjustment accounts.

Relevant Accounting Standards issued by the Institute of Chartered Accountants of India are to be followed.

Suggested Reading:

- Basic Accounting, Rajni Sofat & Preeti Hiro, PHI
- Sukla, Grewal, Gupta: Advanced Accountancy Vol. I, S Chand
- R. L.Gupta & Radheswamy, Advanced Accountancy Vol. I, S. Chand
- Maheshwari & Maheshwari, Advanced Accountancy Vol. I, Vikash Publishing House Pvt. Ltd.
- Sehgal & Sehgal, Advanced Accountancy Vol. I, Taxman Publication
- Hanif & Mukherjee, Financial Accounting, TMH
- Frank Wood, Business Accounting Vol 1, Pearson
- Tulsian, Financial Accounting, Pearson
- Mukherjee and Mukherjee, Financial Accounting I, Oxford
- Accounting Standards issued by ICAI
- Amitava Basu & Sibasish Datta, Financial Accounting I, Tee Dee Pub. Ltd.
- Debarshi Bhattacharya (Ratul), Financial Accounting I, Law Point

Semester 1 Minor Paper 1
Principles and Practice of Management

Credit of the Paper 4

Semester-end Examinations:	75 marks
Tutorial Examinations:	25 marks
Total	100 marks

Course Outcomes (CO):

CO1. To remember and understand the evolution of management and its theoretical framework.

CO2. To examine management functions of planning, organizing, leading, and controlling and understand its impact on the business organization.

CO3. Assess the competencies and functions required to manage effectively and ethically in the contemporary business environment.

CO4. Analyze and understand the evolving business environment, and the role of ethics, social responsibility, and environmental issues in today's business environment.

CO5. To describe various principles that pertains to managing people and organizations in the real world of business.

Unit-1: Introduction:

Management-definition, importance, functions, levels of management, managerial tasks and skills, Management theories - Classical (Taylor & Fayol), Neo-classical (Elton Mayo & Mary Parker Follet) and Modern School of

management (Peter Drucker & Michael Porter) Managerial roles (Mintzberg), Social Responsibility of Management and its significance

Unit-2: Planning:

Meaning, nature, purpose, types, premises, elements of planning and limitations of planning; Strategic planning-concept, process and importance, Decision Making - concept, importance; Environment analysis and SWOT analysis [concept and elements]

Unit-3: Organizing:

Concept, need, principles, steps in organizing, different organization structure [line, staff, functional, project and new organizational structure – basic concepts] Departmentation-need, basis, Delegation of Authority-elements, principles; Centralization and Decentralization of Authority; Span of Management; concept and factors determining span of management

Unit-4: Directing and Leadership:

Directing: concepts, elements and importance; Leadership: Concept, importance, types, Major theories of Leadership (Likert's system four theory, Blake and Mouton's Managerial Grid theory, Fred Fiedler's situational leadership, Tannenbaum & Schmidt's Behavioural Model, Trait theory of leadership)

Unit- 5: Motivation, Co-ordination and Control:

Motivation: Concept, steps, importance, Motivation theories: Maslow's Need-Hierarchy theory, Herzberg's Two-factor theory and McGregor's theory of X and Y;.

Coordination: concepts, importance, principles; Control: concepts, importance and Managerial tools of control.

Suggested Readings

- Kaul, V.K., Business Management, Vikash
- Koontz & Weirich, Essentials of Management, TMH
- Principles of Management, Meenakshi Gupta, PHI
- Stoner & Freeman, Management, PHI
- Drucker, P.F., Managing Challenges for the 21st Century, Butterworth, Oxford
- Mitra, J.K., Principles of Management, Oxford
- Debnath S.K. & Dutta S.P., Principles and Practice of Management, Tee Dee Pub. (P) Ltd.
- Kaul Vijay Kumar, Business Management, Vikas Publishing House

Semester 1 Inter-Disciplinary / Multi-Disciplinary

(IDC / MDC) Paper 1

Microeconomics

Credit of the Paper 3

Semester-end Examinations:	50 marks
Tutorial Examinations:	25 marks
Total	75 marks

Course Outcomes (CO):

CO1: Identify basic economic problems and describe the interaction of individuals and firms in the market.

CO2: Understand demand and consumer behavior and the choices made by agents under different economic conditions to reach equilibrium.

CO3: Apply economic reasoning to solve business problems.

CO4: Analyze the production side of the economy and the producer's equilibrium.

CO5: Evaluate different types of market structures and the strategies adopted by firms involved in these markets with different degrees and levels of competition.

Unit-I Introduction -Definition of Microeconomics, Macroeconomics--positive and normative economics--Basic concepts--scarcity and choice--Production Possibility Curve--Central Problem of the Economy--concept of slope

Unit-II: Theory of Demand and Supply

(A) Demand and Supply--Concepts of Demand--derived demand--Demand function--Determinants of demand -- Law of Demand & its expectations--Movement along the Demand curve and shift of the Demand curve-- Concepts of Supply and Supply function--Law of Supply --Movement along the supply curve and shift of the supply curve--Market equilibrium and Determination of price--Effect of change in the Demand and Supply on Equilibrium price

(B) Elasticity of Demand and Supply-- Price elasticity of demand --Determinants and Measurement of price elasticity--Relationship between slope and price elasticity of demand--Income elasticity of demand--Cross price Elasticity of Demand --Elasticity of Supply

Unit III: Theory of Consumer Behaviour--Concept of Utility and Marginal utility--The Law of Diminishing marginal Utility--Cardinal Utility theory--Concept and significance of Consumer Surplus--Consumer's Equilibrium in case of single and two commodities--Concept of Ordinal utility theory--Indifference curve and its properties-- Marginal Rate of Substitution--Budget Line and Budget equation--Consumer's Equilibrium

Unit IV: Theory of Production and Cost- Concept of Production Function--Fixed and Variable inputs--Short run and Long run--Relation among Total, Average and Marginal Product--Law of Variable Proportion--Return to Scale--Isoquants, Isocosts and Producer's equilibrium (Graphical Explanation)--Concepts of Economic Cost and Opportunity Cost--Short Run and Long run Cost Functions--Relation among Average Cost, Average Variable Cost and Marginal Cost--Long run Average Cost Curve from Short Run Average Cost curves

Unit V :Revenue and Market-- Definition and different forms of Market--Revenue under Different Market Structure--Relation among Total Revenue, Average revenue and Marginal Revenue--Perfect Competition and Monopoly--Features, Equilibrium of the firm (Short Run and Long Run)--Short run supply curve of a firm under perfect competition--Price discrimination under monopoly--concepts and conditions

Suggested readings

- Microeconomics, Mukherjee sampat, Mukherjee Mallinath & Ghosh Amitava, PHI
- Pindyck R and Rubinfeld D.L, Micro Economics, Pearson
- Gould & Ferguson, Micro Economic Theory
- Mankiw.N.G., Principles of Microeconomics, Cengage
- Dasgupta P and Khan P, Microeconomics and Statistics, Elegant Publication

- Bhattacharyya S, Microeconomics and Indian Economics, Oxford University Press
- Majumdar D and Banerjee A, Microeconomics and Statistics, ABS Publishing House
- Dwivedi, D.N., Managerial Economics, Vikash Publications
- Sarkhel J, Salim S and Dutta S, Microeconomics and Statistics, Book Syndicate
- De Bipul, Microeconomics, Tee Dee Publications (P) Ltd. (Bengali & English Version)
- Jana Diparna, Microeconomics 1, Law Point

Entrepreneurship Development

Credit of the Paper 4

Semester-end Examinations: 75 marks

Tutorial Examinations: 25 marks

Total 100 marks

Course Outcome:

CO1: Discuss the concept of entrepreneurship and innovation.

CO2: Apply critical thinking skills by identifying and analyzing entrepreneurship issues using the relevant framework.

CO3: Analyze, interpret, and apply concepts of innovation and entrepreneurship for business decision-making.

CO4: Demonstrate and implement problem solving techniques, critical thinking and to create sustainable business model.

CO5: Identify global business trends in economy and enable students to create innovative solutions through incubations and for start-ups

Unit-1:

Entrepreneur: meaning, features, functions and different types (Innovative, imitating, fabian, drone, social, intrapreneur, technopreneur, ecopreneur) ; Entrepreneurship Meaning, elements, determinants and importance; need for creativity and innovation in Entrepreneurship; Role of family business in India; The contemporary role models in Indian business [including Women Entrepreneur]: their values, business philosophy and behavioural orientations; Conflict in family business and its resolution.

Unit-2:

Public and private system of stimulation, support and sustainability of entrepreneurship, requirement, availability and access to finance, marketing assistance, technology, and industrial accommodation, Role of industries/entrepreneur's associations and self-help groups, The concept, role and functions of business incubators, angel investors, venture capital and private equity fund.

Unit-3:

Sources of business ideas [concept and features] and tests of feasibility [concept and objective], innovation life cycle, creative process, Significance of writing the business plan/project proposal; Concept, importance and contents of business plan/project proposal; Designing business processes, location, layout, operation, planning & control; preparation of feasibility study report and project report [Unit to be studied along-with Case Studies as far as practicable]

Unit-4:

Mobilizing Resources for entrepreneurship, Need for finance in entrepreneurship; Micro, Small and Medium Enterprises: meaning, advantages and disadvantages; Startup: mobilizing resources for start-up: Accommodation and utilities; Preliminary contracts with the vendors, suppliers, bankers, principal customers, basic startup problems, methods to solve startup problems.

Suggested Readings:

- Kuratko and Rao, *Entrepreneurship: A South Asian Perspective*, Cengage Learning.
- Sharma, S., *Entrepreneurship Development*, PHI

- Robert Hisrich, Michael Peters, Dean Shepherd, *Entrepreneurship*, McGraw-Hill Education
- Desai, Vasant. *Dynamics of Entrepreneurial Development and Management*. Mumbai, Himalaya Publishing House.
- Dollinger, Mare J. *Entrepreneurship: Strategies and Resources*. Illinois, Irwin.
- Holt, David H. *Entrepreneurship: New Venture Creation*. Prentice-Hall of India, New Delhi.
- Plsek, Paul E. *Creativity, Innovation and Quality*. (Eastern Economic Edition), New Delhi: Prentice-Hall of India. ISBN-81-203-1690-8.
- Singh, Nagendra P. *Emerging Trends in Entrepreneurship Development*. New Delhi: ASEED.
- SS Khanka, *Entrepreneurial Development*, S. Chand & Co, Delhi.
- K Ramachandran, *Entrepreneurship Development*, McGraw-Hill Education
- SIDBI Reports on Small Scale Industries Sector.
- Mukherjee & Roy, *Entrepreneurship Development*, Oxford
- Chandra B & Biswas B, *Entrepreneurship Development*, Tee Dee Pub (P) Ltd (Bengali & English Version)

Syllabi for AEC and VAC will be provided by the respective UGBOS

Semester 2
Major Paper 2
Cost Accounting I
Credit of the Paper 4

Semester-end Examinations: 75 marks
Tutorial Examinations: 25 marks
Total 100 marks

Course Outcomes (CO):

CO1: Illustrate the objectives of cost accounting, classification of cost as well as techniques and methods of costing.

CO2: Prepare cost sheet and analyze different elements of cost necessary for cost control.

CO3: Analyze the various system of wage payment and inventory control.

CO4: Ascertain material and labor cost by application of appropriate methods.

CO5: Classify overheads for proper allocation and apportionment and prepare Overhead distribution summary sheet necessary for decision making.

Unit	Topic	Content
1.	Introduction	<ul style="list-style-type: none"> • Definition of Costing, Objectives of Cost Accounting; Installing a Cost Accounting System, Essentials of a good Cost Accounting System. • Cost concepts, terms and classification of costs: Cost, Cost object, Cost units and Cost Centres, Types of costs, classification of costs- Direct-Indirect, Elementwise, Functionwise, Behaviourwise, Sunk Cost, opportunity Cost, Incremental and Differential cost. Costing Methods and Techniques (introduction only).

2	Material Costs	<ul style="list-style-type: none">• <i>Purchase of materials</i>: Organisation, purchase procedure, documentation, determination of material purchase costs.• <i>Storage of materials</i>: Need for storage, location and types, functions of a storekeeper, requisition, receipt, issue and transfer of materials, storage record, accounting for materials cost.• <i>Materials control</i>: Organisation; Tools: Just-in-Time Purchase; various stock levels, Economic Ordering Quantity and ABC Analysis; Periodic Inventory, Perpetual Inventory, Physical verification; Discrepancies in stock and their treatment.• Methods of Pricing Material Issues: FIFO, LIFO, and Weighted Average.• Treatment of Normal and Abnormal Loss of Materials
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3	Employee Cost and Incentive Systems	<ul style="list-style-type: none"> • Introduction, Recording labour cost: Attendance and payroll procedures (Time-keeping, Time-Booking, Payroll procedure, Payment of wages-Piece rate, differential piece rate, time rate); Idle time (causes and treatment in Cost Accounting), Overtime (its effect and treatment in Cost Accounting), Labour turnover (Causes, impact and methods of calculating labour turnover). • Main Principles for sound system of wage incentive schemes, labour utilisation; System of Wage Payment and Incentives(Halsey, Halsey-weir, Rowan and Efficiency based); Group Bonus scheme (simple) • System of Incentive Schemes for Indirect Workers; Component of wages cost for costing purpose.
4	Accounting for Overhead	<p>Overhead</p> <ul style="list-style-type: none"> • <i>Introduction:</i> Definition, Classification of Overhead- Functional and Behavioural. • <i>Manufacturing Overheads:</i> Allocation and apportionment of Overhead; Absorption of Overhead: Blanket and Departmental rate; various methods of absorption and their applications; Under absorption/over absorption of overheads and their treatment. • <i>Administration and Selling & Distribution Overheads and their charging.</i>
5	Cost Statement	<ul style="list-style-type: none"> • Preparation of Cost Sheet, Single product and Multi-product, estimation and price quotation

Suggested Readings

- Horngren, Foster, Datar, et al., Cost Accounting,- A Managerial Emphasis, Pearson
- B.Banerjee, Cost Accounting: Theory and Practice, PHI
- Drury, Colin., Management and Cost Accounting, Cengage
- Jawahar Lal & Seema Srivastava, Cost Accounting, TMH
- M.Y.Khan & P.K.Jain, Management Accounting, TMH
- Atkinson, Management Accounting, Pearson
- Bhattacharyya, Ashish K., Cost Accounting for Business Manageres, Elsevier
- Ravi M Kishore, Cost and management Accounting, Taxmann
- Mitra, J.K., Cost & Management Accounting, Oxford
- Hanif, M., Cost & Management Accounting, McGraw Hill
- Bhattacharya Debarshi, Cost & Management Accounting I, Law Point

Semester 2 Minor Paper 2
Marketing Management and Human Resource Management

Credit of the Paper 4

Semester-end Examinations: 75 marks

Tutorial Examinations: 25 marks

Total 100 marks

Module 1: Marketing Management

Semester-end Examinations - 40 marks

Unit 1: Introduction

Meaning of market, Objectives and Importance of Marketing; Societal Marketing concept
Selling vs. Marketing; Marketing mix [concepts, components]
Marketing environment: concept, importance, and components.

Unit 2: Market Segmentation

Market segmentation: concept, importance and bases; Product differentiation vs. market segmentation.
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Unit 3: Product

Concept and importance, Product classifications; Concept of product mix;
Branding-Concept, packaging and labeling;
Product life-cycle [concept], New Product Development Process.

Unit 4: Pricing and Distribution

Pricing [Meaning, objectives, Significance and methods] Factors affecting price of a product. Pricing policies and strategies
Distribution Channels - meaning and importance; Types of distribution channels

Unit 5: Promotion and Recent developments in marketing

Promotion: Nature and importance of promotion;
Types of promotion: advertising, personal selling, publicity & sales promotion,
Recent developments in marketing: Social Marketing, online marketing, direct marketing, services marketing, green marketing, Rural marketing; Consumerism.

Module 2: Human Resource Management

Semester-end Examinations – 35 marks

Unit 1: Nature and Scope

Concept and meaning of HR, Understanding the Nature and Scope of HRM,
Functions and importance of HRM

Unit 2: Human Resource Planning

Definition, Need of Human Resource Planning,
Factors affecting Human Resource Planning.

Unit 3: Recruitment and Selection

Definition of Recruitment, Source, need and importance of Recruitment,
Recruitment Policy–process–sources of Recruitment Definition of Selection, Steps in selection.

Unit 4: Training and Development

Training and Development Meaning and purpose of training,
Benefits of training to organization and employees –Training methods.

Unit 5: Job Evaluation and Performance Appraisal

Job evaluation- objectives, scope,
Job analysis, Job description, Job Specification-basic concept and significance,
Performance Appraisal-Concept

Suggested Readings:

- Kotler, P., Marketing Management, Pearson
- Ramaswamy and Namakumari, Marketing Management, McMillan
- Marketing Management, Govindarajan, M., PHI
- Principles of Marketing, Kapoor, N., PHI
- Bhagwati, Pillai, Marketing Management, S.Chand
- Verma, Duggal, Haldar & Sarkar, Principles of Marketing, Oxford
- Samanta, S R, Human Resource Management, PHI
- Mahajan, Reeta, Human Resource Management, Vikash
- Haldar & Sarkar, Human Resource Management, Oxford
- Sinha, Sekhar & Bala, Human Resource Management, Cengage
- Jyothi & Venkatesh, Human Resource Management, Oxford
- Praharaj & Praharaj, Principle of Marketing and Human Resource Management, Tee Dee Pub (P) Ltd. (Bengali & English Version)
- Ghosh Sudipta & Joshi Lalit Kumar, Marketing Management and Human Resource Management, Law Point

Semester 2 Inter-Disciplinary / Multi-Disciplinary COURSE
(IDC / MDC) Paper 2

Macroeconomics

Credit of the Paper 3

Semester-end Examinations:	50 marks
Tutorial Examinations:	25 marks
Total	75 marks

Course Outcome (CO):

CO1. Identify, understand, and apply the different methods for measurement of GDP, NDP, GNP and PDI and understand the concepts and principles of savings-investment identity and circular flow of income

CO2. Understand the concepts of Simple Keynesian Model and IS LM Model and apply the principles to determine the equilibrium level of income and interest rate.

CO3. Analyze and evaluate the effectiveness of fiscal and monetary policies in determination of equilibrium national income and interest rate.

CO4. Understand and analyze the derivation of the aggregate demand and supply curves and their shifts, the derivation and shift of SRPC and LRPC, different forms of inflation

CO5. Understand and analyze the different components of Balance of Payments accounts, derivation of fixed and flexible exchange rates, and circular flow of income and savings-investment identity in case of an open economy

Unit –I Basic Concepts: Macroeconomics, Concepts, Scope, macroeconomic variables, objectives, Differences with microeconomics.

Unit-II :National Income: National income accounting, Concepts and measurement of GDP,GNP,NNP,NDP,PI,DPI, Circular flow of income (2 sectors & 3 sectors economy),Real and Nominal GDP and GDP Deflator.

Unit-III: Determination of equilibrium income in Simple Keynesian Model: Theory of Income determination- Simple Keynesian model; Consumption, Saving, Investment functions; National Income determination; Investment multiplier, Government expenditure multiplier (Graphical Analysis), Tax multiplier and Balanced budget multiplier (concepts).

Unit-IV: Money and inflation- Concept of demand for money and supply of money, Measures of supply of money, High powered money, money multiplier, Concept of Inflation, Demand pull and Cost push Inflation. Inflationary gap. Monetary and fiscal measures to control inflation.

Unit-V: Public Finance: Government budget-meaning and components, Classifications of receipts –revenue and capital receipts; Classification of expenditure-revenue and capital expenditure. Measures of Government deficit-Revenue deficit, Fiscal deficit, Primary deficit.

Suggested Readings

- Branson W.H. Macro Economic Theory and Policy,
- Dornbusch, Fischer & Startz, Macroeconomics, TMH
- Samuelson & Nordhaus, Macroeconomics, McGraw Hill
- Ghosh C & Ghosh A., Macroeconomics, PHI
- Parchure, S., Macroeconomics, PHI
- Bhattacharyya S and Das I, Macroeconomics and Advanced Business Mathematics, , Oxford University Press
- Majumdar D and Chatterjee N, Macroeconomics and Advanced Business Mathematics, ABS Publishing House
- Dasgupta P and Chakraborty G, Samashtigoto Orthoneeti o uchhotoro Banijyik Gonit, Dey Book Concern
- De Bipul, Macroeconomics, Tee Dee Publications (P) Ltd. (Bengali & English Version)

Semester 2 SKILL ENHANCEMENT COURSE (SEC) Paper 2

Information Technology and its Application in Business

Credit of the Paper 4

Semester-end Examinations (Theory):	50 marks
Semester-end Practical Examinations:	50 marks
Total	100 marks

Course Outcomes (CO):

CO1: To recognize the roles of information systems in supporting the structures and processes; the management; and the strategic success of organizations.

CO2: To understand the basic components of the information technology infrastructure of an organization: hardware and software; data resources; telecommunications and networks; and the Internet.

CO3: To apply the IT/design tools for the DBMS based application.

CO4: To analyze database systems for business applications.

CO5: To evaluate key issues of Information Systems, including security and control and global systems issues.

Module I

Theory (50 Marks)

Unit 1: Fundamentals of Computer

Components of a Computer System, Applications of Computers, Advantages and Disadvantages of Computers, Software and its Types: System Software, Application Software, Operating System, Mobile Operating System, Free and Open Software.

Unit 2: Internet Services & Security measure:

Key technology concepts, Packet switching, TCP/IP, IP addresses, Types of Internet Services, World Wide Web (WWW), Uniform Resource Locator (URL), Domain Names, Web Browsers. Internet of Things: Concept, Smart Device, RFID and its use cases, Wireless Sensor Networks and its applications, Information Rights, Privacy and Freedom in an Information Society, Principles of Cyber Security, Computer Malwares, Well-known attacks (Fishing, Spoofing etc.) and its prevention measures like CAPTCHA Code, Password etc. Use of Blockchain technique for security measures.

Unit 3: Current Computing Paradigm

Cloud Computing: Service Oriented approach, Virtualization, Business Model, Use cases, Green computing, Edge computing, Quantum computing, Challenge of Big Data

Unit 4: Business Data Handling

Transaction processing, Analytical processing-Concepts, Techniques, Difference, Concept of Data Mining including Text Mining and Web Mining, Evolution of AI, Importance of Artificial Intelligence in Business Data handling through use cases, Basic Concepts of an Expert system in context of Business Data Management, Basic concepts of Machine learning including supervised and unsupervised learning, Application of Machine learning in Banking and Finance, Basic concepts on ERP based Business Software Solutions. Intelligent Agents (Concepts & Application).

Unit 5: IT Act. 2000 and Cyber Crimes

IT Act 2000(as amended thereon)- Definitions of different terms, Digital signature, Electronic Governance, Attribution, Acknowledgement and Dispatch of Electronic Records, Regulation of Certifying Authorities, Digital Signatures Certificates, Duties of Subscribers, Penalties and Adjudication, Appellate Tribunal, Offences and Cyber-crimes.

Module II
Practical (50 Marks)

Unit No.	Unit Name	Topics
1	Word processing	Introduction: Creating and saving your document, displaying different views, working with styles and character formatting, working with paragraph formatting techniques using indents, tabs, alignment, spacing, bullets and numbering and creating borders; Page setup and sections: Setting page margins, orientation, headers and footers, end notes and foot notes, creating section breaks and page borders; Working with tables: Creating tables, modifying table layout and design, sorting, inserting graphics in a table, table math, converting text to table and vice versa; Create newspaper columns, indexes and table of contents, Spell check your document using inbuilt and custom dictionaries, checking grammar and style , using thesaurus and finding and replacing text; Create bookmarks, captions and cross referencing, adding hyperlinks, adding sources and compiling and bibliography; Mail merge: Creating and editing your main document and data source, sorting and filtering merged documents and using merge instructions like ask, fill-in and if-then-else; Linking and embedding to keep things together. (Creating Business Documents using the above facilities; Hands-on experience in using spreadsheet software
2	Spreadsheet	Working with cell and cell addresses, entering and editing data, finding and replacing data, selecting a range, moving, cutting, copying with paste, inserting and deleting cells, freezing cells, cell formatting options, adding, deleting and copying worksheet with in a workbook, renaming a worksheet, Cell reference – relative, absolute - Elements of spreadsheet charts – categories, create a chart, choosing chart type, edit chart axis, titles, labels, data series and legend, adding a text box, rotate text in a chart. Hands-on experience in using spreadsheet software .
3	Presentation	Introduction, creating presentations – using auto content wizard, using templates, using blank presentation, formatting background, adding sounds, slide show, slide sorter, setting animation, slide transaction, setting intervals, saving and printing, presentations, adding and playing audio clips in presentations, creating hyperlinks in presentations, converting the presentations into a video clip, Morph Transition. (Creating Business Presentations using above facilities). Creating professional presentations using software.

Suggested Readings

- Introduction to Computer Application (As per NEP) by Ashok Arora. [S.Chand and Co. Ltd.]
- Fundamentals of Computers by Reema Thareja; Oxford Publisher
- Computer Fundamentals by Pradeep K Sinha; BPB Publication
- Experiencing MIS by Kroenke and Boyle. [Pearson]
- Essentials of MIS by Laudon & Laudon. [Pearson, 14th Edition]
- New Perspectives Microsoft® Office 365® & Office 2019 Introductory by Patrick Carey, Dan Oja, June Jamrich Parsons, Katherine T. Pinard, Ann Shaffer, Mark Shellman [Cengage]
- Information Technology and its Application in Business, S Dawn and P Banerjee, Tee Dee Pub. Ltd.
- Introduction to Computer Application, Ashok Arora, Vikas Publishing House,
- Computer Applications -1, Anirban Das & Shantanu Chakraborty, Law Point
- Computer Applications in Business, Deepak Jain, Law Point