M.B.A. (E-Commerce) 5 years Integrated
Batch 2023-2028
Semester II

S.no.	Code	Course	Credit
1	MS6A-102	RDBMS	03
2	MS6A-104	Operating System	03
3	MS6A-106	Digital Information System	03
4	MS6A-108	Individual and Interpersonal Behavior	03
5	MS6A-110	Business Statistics	03
6	MS6A-112	English	03
Electives: select any 2 out of 4			
7	MS6A-114	Business Accounting	03
8	MS6A-116	Environmental Sustainability & Climate Change Mitigation	03
9	MS6A-118	Corporate English	03
10	MS6A-120	Data Structure using C	03
11	MS6A-152	Comprehensive Viva Voce	03 (Virtual)
TotalCredits: 24+3Virtual Credit			

M.B.A. (e-commerce)
Batch 2023-2028
Semester II

Subject Name	**RDBMS**	**Subject Code**	**MS6A-102**
		Total Credits	**03**

Subject Nature: CORE

Course Objective:

- Describe a database management system and trace its historical development.
- Understand and apply the principles of data modeling using Entity Relationship and develop agood database design.
- Understand the use of Structured Query Language (SQL) and MS Access.

Learning Outcome:

At the end of the course students should be able to;

- Students can design, implement, and evaluate a computer-based system, process, component,or program to meet desired needs.
- Students can use current techniques, skills, and tools necessary for computing practice.
- An ability to identify and analyze user needs and take them into account in the selection,creation, evaluation and administration of computer-based systems.

Examination scheme:

The faculty member will award internal marks out of 40 based on three assessments of 20 marks each of which best two will be considered. The end semester examination will be worth 60 marks having theory and cases/practical problems.

Course Contents

Unit-1 Database Management Systems	Data, Database, Database Management Systems, Types of Database Management Systems Relational, Hierarchical, Network, and Object oriented database management systems, Entity Relationship Model (E-R Model), Data Model Normalization Theory, Codd's Rules for RDBMS.
Unit-2 RDBMS	Concepts of RDBMS, Components of RDBMS Introduction to SQL, DDL, DML, DCL. Application Exercises
Unit-3 SQL	Cartesian Product and Joins, Use of Union Intersection, Minus, SQL operators and functions, SQL select statement and type of queries, In, Exists Group by Having and Like clause in SQL, View Sequence and synonyms SQLPLUS
Unit -4 SQL/PLSQL	Introduction to PL/SQL, The PL/SQL block constructs, using variables and SQL statement in the PL/SQL block PL/SQL constructs like If..Else..Endif, Loop Endloop, whileloop etc. Application Exercises

Unit -5 MS-Access/ Oracle	Overview of MS-Access/Oracle, Main elements of Access,Table, Queries and Oracle Creating Forms, entering and updating data using Forms,finding, editing and deleting data in a Form, Reports, and Relationships.

Learning Resources:

Text Books:

1. Alexis Leon and Mathews Leon, **"Database Management System "**, Vikas Publication, New Delhi, 2002
2. Rob Coronel **"Database System and Design ,Implementation and Management** "Thomson learning , Banglore, 2002
3. SQL, PL/SQL "**The programming language of Oracle"** by Ivan Bayross (BPB Publications)

Suggested Readings:

1. Bipin C. Desai, **"An Introduction to Database Systems"**, Golgotha Publications Pvt. Ltd.,New Delhi, 2001

M.B.A. (e-commerce)
Batch 2023-2028
Semester II

Subject Name	**Operating System**	**Subject Code**	**MS6A-104**
		Total Credits	**03**

Subject Nature: Core

Course Objective:

- To teach the basics of Operating System its architecture with technical mechanism of definingand usage of processes and scheduling and their utilities.
- To bring familiarity about Device and Security Management in business System.
- To explore the function of Operating System.

Learning Outcome:

At the end of the course students should be able to;

- Understanding of Operating System functions.
- Types of Operating System and their Utility.
- Choose the better System software and hardware platforms in business automation.

Examination scheme:

The faculty member will award internal marks out of 40 based on three assessments of 20 marks eachof which best two will be considered. The end semester examination will be worth 60 marks having theory and cases/practical problems.

Course Contents

Unit–1 Operating system & its Type	Basics of Operating System, Definition, Architecture, Functions and Concept of time sharing, multiprogramming, Batch processing, real time operating system and distributed processing.
Unit-2 Processor Scheduling	Processor Scheduling: Process, scheduling, various processor scheduling algorithms, Measurements of performance of processor schedule algorithms.
Unit-3 Inter processor communication	Inter processor communication: Mutual exclusion & Synchronization, Concept of SEMAPHORS, Classical IPC problems.
Unit-4 Deadlocks	Deadlocks: Deadlock Prevention, Detection, Recovery & Avoidance, Bankers' Algorithms.
Unit-5 Memory Management	Memory Management: Functions, Algorithms, Single user memory Management, Static & Dynamic Partition, Compaction & Relocation, Paging Virtual memory sequestrations

Unit-6 **File Systems**	File structure, Directory Structures, Disk block Allocation, Unix File System, File System consistency, Protection andsharing.
Unit-7 **I/O Systems**	I/O Systems: Various I/O devices, Drivers. Structure of I/O software, Clock.

Learning Resources:

1. Operating System Design & Implementation, Andrew S. Tanenbaum, PHI, New Delhi.
2. Advanced Concepts in Operating Systems, M. Singhal, N. G. Shivaratri, Tata McGraw Hill.
3. Operating systems, D.M. Dhamdhere, Tata McGraw Hill.
4. Operating Systems, Milan Milenkovi'c Tata McGraw Hill.
5. Distributed Operating Systems, Andrew S.Tanenbaum, Pearson Education Asia.

M.B.A. (e-commerce) Batch 2023-2028 Semester II			
Subject Name	**Digital Information System**	**Subject Code**	**MS6A-106**
		Total Credits	**03**
Subject Nature: CORE			
Course Objective: • To teach the concepts of Digital information system and its uses. • Explain the elements of digital system abstractions such as digital representation ofinformation, digital logic and Boolean algebra. • Use the "Tools of trade". Basic instruments, devices and design tools. • Communicate the purpose and results of a design project in written and oral presentation.			
Learning Outcome: At the end of the course students should be able to; • Create the appropriate truth table from a description of a combinational logic function. • Describe how analog signals are used to represent digital values in different logic families. • Understand the leadership role of management information systems in organization.			
Examination scheme: The faculty member will award internal marks out of 40 based on three assessments of 20 marks each of which best two will be considered. The end semester examination will be worth 60 marks having theory and cases/practical problems.			
Course Contents			
UNIT –I Boolean algebra	Laws and theorems of Boolean algebra.De Morgan's theorem,XOR and XNOR gates, Half and Full Adder and Subtractor circuits. Fundamentals: Products, Sum of products and Product of sums,Form of Boolean expressions, Truth Tables and Karnaugh maps, pair reads octets and Karnaugh simplification. Multiplxers BCD to Decimal to BCD decoders and, decoders' characteristics of digital integrated digitals.		
Unit-2 The Concept and Evolution of DIS	Conceptual framework of DIS-System approach. Evolution of DIS. Design and development of DSS, ESS, OAS, Case Study		

Unit-3 Information System and Business	Information Systems and Organization Data & Information Management and Decision Making Information Systems and Society. MIS and its technical and behavioral aspects in business. Case Study
Unit- 4 Management Decision Making	Information Management. Decision Making-What managersdo, behavioral model. Classical description of management. Level of decision making, types of decisions, structured unstructured types of decisions systems stages of decision making, Individual model of decision making. Case Study
Unit -5 Modules of Information Systems	Modularization process of information system Types of sub modules/ sub systems Features and Specifications of sub systems Case Study
Unit -6 Integrated Information System	Integrated Information Systems: BIS, ERP Introductions MRP, MRP-II, Definition Implementation Benefits & Precautions ERP software. Introduction to Artificial Intelligence and Knowledge Management

Learning Resources:

1. Murdick. et. al. Information System for Modern Management- PHI.
2. London & London – Management Information Systems – PHI
3. Obrien – Management Information System

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Batch 2023-2028
Semester II

Subject Name	**Individual and InterpersonalBehavior**	**Subject Code**	**MS6A-108**
		Total Credits	**03**

Subject Nature: CORE

Course Objective:

- To help the students aware about the latest systems available and proper sues of systemfor their software development.
- To provide the necessary foundation for all other courses based on management practicesacross the world.

Learning Outcome: At the end of the course students should be able to;

- Define individual and interpersonal behavior and explain motivation and group behavior.
- Briefly describe the leadership role and stress management in individual andinterpersonal behavior.

Examination scheme:
The faculty member will award internal marks out of 40 based on three assessments of 20 marks each of which best two will be considered. The end semester examination will be worth 60 markshaving theory and cases/practical problems.

Course Contents

UNIT-1 Foundations of individual behavior	Biographical characteristics, Learning and learning theories, Perception and its role in managerial decision making. Personality – Determinants and Attribute
UNIT-2 Motivation	Needs, contents and processes, Maslow's Hierarchy of needs, Herzberg's Two Factor theory, ERG theory
UNIT-3 Foundation of group Behavior	Defining and Classifying Groups, Group Structure and Processes, Process of Group formation. Group decision making, Group v/s teams, Team effectiveness, Communication – Process,fundamentals and issue
UNIT-4 Leadership	Trait theories, Behavioural theories – Ohio State Studies, Michigan Studies and Managerial Grid; Contingency theory Situational theory; Contemporary issues in Leadership

UNIT-5 Stress Management	Stress Management – Potential Sources, Consequences andCoping Strategies for stress.

Learning Resources:

1. Human Resource Management – Gary Dessler, Pearson Education
2. Managing Human Resources – Devid B. Balkin, Pearson Education
3. Organizational Behavior by Stephen Robbins, PHI.
4. Organization Behaviour by Fred Luthans, PH

M.B.A (E-Commerce)
Batch 2023-2028
Semester II

Subject Name	**Business Statistics**	**Subject Code**	**MS6A-110**
		Total Credits	**03**

Subject Nature: Core

Course Objective:

- To teach the concepts of business statistics and its principles.
- To develop understanding of statistical concepts to include probability, sampling, hypothesis testing, regression etc.

Learning Outcome:

At the end of the course students should be able to;

- Independently calculate basic statistical parameters (mean, dispersion, correlation coefficient)
- Based on the acquired knowledge to interpret the meaning of the calculated statisticalindicators.
- Choose a statistical method for solving practical problems.

Examination scheme:

The faculty member will award internal marks out of 40 based on three assessments of 20 marks each of which best two will be considered. The end semester examination will be worth 60 marks having theory and cases/practical problems.

Course Contents

UNIT–1 Introduction to Quantitative Techniques	1.1 Introduction to Quantitative Techniques and Statistics

Unit-2 Introduction to Statistical Methods	Introduction to statistical methods – Collection of data, Security of data, Presentation of numerical data and its diagrammatic representation.
Unit-3 Central Measurements	Measures of Central Tendency and Dispersion – ArithmeticMean Median, Mode, Range, Mean deviation and standard deviation.
Unit- 4 Concept of Probability	Basic Concepts of probability. Probability Distribution – Binominal, Poisson and Normal Distribution.
Unit -5 Sampling Methodology	Sampling, Sampling methods, sampling Non sampling errors
Unit-6 Decision Theory	6.1 Decision Theory Introduction to Decision Theory.
Unit-7 Correlation and Regression	Simple Correlation and Regression Simple Regression andSimple Correlation, Trend Analysis using Regression line, Correlation Analysis

Learning Resources:

Text Books:

1. Business Statistics – J.K. Sharma, Pearson Education
2. Fundamental of Statistics, D.N. Elhance
3. Statistical Methods, Prof. S.P. Gupta
4. Statistics for Management, Prof. R.I. Levin
5. Statistics Theory, Methods and Applications, Sancheti and kapoor.

M.B.A. (E-Commerce)
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Semester II

Subject Name	**English**	**Subject Code**	**MS6A-112**
		Total Credits	**03**

Subject Nature: CORE

Course Objective:

- To teach the Importance of language and Literature
- To create awareness of grammar and develop student's listening, speaking and writing power.
- To help students to explore their hidden personality.

Learning Outcome:

At the end of the course students should be able to;

1. Develop the confidence of expressing themselves in the right direction
2. Should understand and make correct utilization of their knowledge of English Language
3. Have equal command over different aspects like reading, writing, listening and speaking the language.

Examination scheme:

The faculty member will award internal marks out of 40 based on three assessments of 20 marks each of which best two will be considered. The end semester examination will be worth 60 markshaving theory and cases/practical problems.

Course Contents

UNIT –I Prose	On Saying Please On Habits On Courage On Fear On Keyhole Morals
Unit-2 Poetry	On His Blindness – John Milton It is not growing like a tree- Ben Jonson Elegy Written in a country churchyard- Thomas Gray
Unit-3 English Grammar & Usages	Concord; Agreement of the verb with its subject , Structure of sentences, Active & Passive voice , Reported Speech , Idioms & Phrases
Unit- 4 Writing & Communication Skills	Paragraph writing, Precis writing , Letter & Application writing & Business Doc writing Preparing RESUME (CV)
Unit -5 Business Writing	Email & SMS Rules Contract writing , RFP, RFQ, Proposal, SRS Business Terminology – eg: EOB, EOD, SRS

Learning Resources:

1. Kumkum Bhardwaj, Professional Communication, I.K International Publication, New Delhi
2. Solomon Ambuchelvan,' What is What of English', Acme Learning
3. Deepshikha Jain, Communicative English Parshva Publishers
4. Rajshri Dewan, English and Business Communication Amce Learning

M.B.A. (E-Commerce)
Batch 2023-2028
Semester II

Subject Name	**Business Accounting**	**Subject Code**	**MS6A-114**
		Total Credits	**03**

Subject Nature: Elective

Course Objective:

- To teach the concepts of accounting and its principles.
- To bring familiarity applications of accounting in business functions.
- To explore the process of role of accounting in maintaining systematic records.

Learning Outcome:

At the end of the course students should be able to;

- Know the concepts of Accounting and their applications in recording.
- Understanding relationship between business and accounting.
- Differentiation of accounting and finance in various business functions.

Examination scheme:

The faculty member will award internal marks out of 40 based on three assessments of 20 marks each of which best two will be considered. The end semester examination will be worth 60 marks having theory and cases/practical problems.

Course Contents

Unit –I Introduction, Meaning and Definitions	Introduction to Accounting: Meaning of Accounting The process of Accounting, Advantages of Accounting Financial Accounting, Financial Statements, Uses of FinancialStatements Limitations of Accounting. Relationship with other functional areas
Unit-2 Accounting Concepts and their Applications	Accounting concepts and Mechanics: Generally Accepted Accounting Principles (GAAP) Basic Concepts, Concepts of Double entry system ofaccounting rules of debit credit entries Types of accounts, Journalizing the transactions Posting entries in ledger accounts and concept of trial balance,Cash Books, Subsidiary Books.
Unit-3 Financial Statement and Others	Preparation of Financial Statements Trading Account, Profit and Loss Account Balance Sheet and Adjustment Entries.

Unit- 4 Depreciation	Depreciation: Meaning, Objectives, Methods of Depreciation. Fixed Installment Methods and Reducing Installment Methods Numerical Experiments

Learning Resources:

Text Books:

1. T.S.Grewal, Introduction to Accountancy, Sultan and Sons, New Delhi.
2. T.S.Grewal, Double Entry System of Book Keeping, Sultan Chand and Sons
3. Maaheswari, Financial Accounting,Vikas Publications, New Delhi.

M.B.A. (E-Commerce)
Batch 2023-2028
Semester II

Subject Name	**Environmental sustainability & climate change mitigation**	**Subject Code**	**MS6A-116**
		Total Credits	**03**

Subject Nature: Elective

Course Objective:

- To develop global prospective about the environmental management
- To develop understanding of how environmental an ecosystem services are crucialelements to reduce disaster risk in Business.
- To bring climate change mitigation and other options for sustainable development, carbon trading a new concept.

Learning Outcome:

After completion of this course students will be capable to:

1. Understand how environment and ecosystem services are crucial elements to the societyand business
2. Identify their roles and responsibility towards the environment at individual and grouplevel.
3. Explore the way to keep sustainable environment for the present and next generations

Examination scheme:

The faculty member will award internal marks out of 40 based on three assessments of 20 markseach of which best two will be considered. The end semester examination will be worth 60 marks
having theory and cases/practical problems consisting 7/8 questions with a note of attempt anyfive or more by mentioning marks of each question. .

Course Contents

Unit I Introduction	1. Basic concept of environment and ecosystem, 2. Global environmental issues, environmental sustainability, from unsustainable sustainable development. 3. Path to sustainability, Global environmental summits. 4. Objective and the components of environmental management.
Unit II Environmental Impact Assessment	1.Management tools Environmental impact assessment. 2.The millennium ecosystem assessment. 3.Brief introduction of HYOGO framework Biosafety categena protocol.
Unit III Risk and Challenges	1.Environmental risk, global climate changes: causes, impact,2.Ozone depletion and its consequences. 3.Kyoto protocol and Montreal protocol
Unit IV Climate Change Mitigation	1. Case studies of climate related disasters: Climate change mitigation CDM 2. Carbon trading.
Unit V National and International Efforts	1. Role and efforts of International Agencies in Strengthening nations for sustainable development special Reference to UNEP, WRI, WORLD BANK 2. Indian Ecosystem and Role of Education in Disaster Management 3. Case Studies

Learning Resources:

Text Books: (Latest Edition)

1. Environmental Management, N.K. Liberoi, Excell Books
2. Environmental Science, G. Tylor Miller, Jr. Cengage Learning

INSTITUTE OF MANAGEMENT STUDIES			
M.B.A. (eCommerce) **Batch 2023-2028** **Semester II**			
Subject Name	**Corporate English**	**Subject Code**	**MS6A-118**
		Total Credits	**03**
Subject Nature: Elective			
Course Objective: • The Corporate English course for undergraduate management students aims to equip learners with effective communication skills required in the corporate world. This course focuses on enhancing students' verbal and written communication abilities, emphasizing business-specific language, etiquette, and communication strategies.			

Learning Outcome:

At the end of the course students should be able to;

- Communicate confidently and effectively in various business contexts.
- Write professional emails, reports, and other business documents.
- Conduct successful business presentations and meetings.
- Understand and utilize business vocabulary and terminology.

Examination scheme:

The faculty member will award internal marks out of 40 based on three assessments of 20 marks each of which best two will be considered. The end semester examination will be worth 60 markshaving theory and cases/practical problems.

Course Contents

UNIT –I Introduction to Corporate Communication	Importance of effective communication in the corporate world Differences between academic and corporate communication Overview of business communication strategies
Unit-2 Business Writing Skills	Crafting professional emails and memos Writing business reports and proposals Creating persuasive business documents
Unit-3 Oral Communication in Business	Conducting successful business presentations Participating in meetings and discussions Practicing effective negotiation and persuasion
Unit 4 Business Vocabulary and Terminology	Building a strong business vocabulary Understanding industry-specific terms Using appropriate terminology in communication
Unit 5 Communication Etiquette in the Corporate World	Professional phone etiquette Business dining and networking etiquette Cross-cultural communication considerations

Recommended Textbooks:

1. **Business Communication: Building Critical Skills** by Kitty O. Locker and Stephen Kyo Kaczmarek
2. **Effective Business Communication** by Herta A. Murphy and Herbert W.

Hildebrandt
3. **The AMA Handbook of Business Writing** by Kevin Wilson and Jennifer Wauson

M.B.A. (e-Commerce) **Batch 2023-2028** **Semester II**			
Subject Name	**Data Structures using C**	**Subject Code**	**MS6A-120**
		Total Credits	**03**

Subject Nature: Elective

Course Objective:

- To teach the basics of programming and structures of data with technical mechanism of defining and usage of variables and functions in developing the different software.
- To bring familiarity about logic development and applications in business functions.
- To explore the process of Computing and Programming together.

Learning Outcome:

At the end of the course students should be able to;

1. Understanding of logic and applications through programming.
2. Applications and computer language compatibility.
3. Choose the better software and hardware platforms in business automation.

Examination scheme:

The faculty member will award internal marks out of 40 based on three assessments of 20 marks each of which best two will be considered. The end semester examination will be worth 60 marks having theory and cases/practical problems.

Course Contents

UNIT –I Introduction to Algorithms and Data Structures	Definition and Characteristics of Algorithms Data Structure: Definition and Types, Relation between datastructure and algorithm Static variable, Dynamic variable, Representation and address calculation of single and multidimensional array in memory, Sparse Matrix Time and space complexity of algorithm.

Unit-2 C Programming Concepts	General structure of C program, C character set, Data types, Operators, if, if-else, while, do-while, for, switch statements Function: Declaration, definition and calling, call by value and reference
	Introduction to pointers, Pointer notation Structures: Need, Declaring Structure, Accessing structure elements
Unit-3 Stacks and Queues	Representation of stacks, Operations on stack Representation of queues, Operations on queues Multiple queues, Circular queues, De-queues, Applications of stack and queues, Implementation through C program, Expression evaluation
Unit- 4 Linked Lists and Trees	Representation and Implementation of Linked Lists Types of Linked Lists: Singly, Doubly, Circular. Trees: Basic concept, definitions and types Binary Tree: Traversal and Operations Applications of trees
Unit -5 Searching and Sorting	Searching: Concept, Techniques and algorithms Sorting: Concept, Types of sorting, Importance
Unit-6 Hash and Graphs	Hash table, Hash techniques Graphs: definition, representation, traversal and applications.

Learning Resources:

Text Books:

1. Data structure using C and C ++ by Langsam, Augenstein, Tenenbaum PHI publishers
2. Algorithm + data structure = Program by Niklaus Wirth Prentice Hall Publishers.
3. Data structure using C Robert KruseData structure with C++ by Drozdek
4. Data Structures - Lipschutz, Schaum's Outline Series