SEMESTER I

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
26BCA101T	Foundations of Computing & Digital Logic	3	-	-	3	40	60	100

Course Objectives	Course Outcomes
This course is intended ● To introduce fundamental concepts of computer systems and digital electronics. ● To develop understanding of number systems and binary arithmetic. ● To explain Boolean algebra and logic gate operations. ● To analyze combinational and sequential digital circuits. ● To build foundational knowledge required for advanced computing subjects.	**Students will be able to** 1. Explain the basic organization and components of a computer system. 2. Perform number system conversions and binary arithmetic operations. 3. Apply Boolean algebra laws for logical simplification. 4. Design and analyze basic combinational circuits. 5. Interpret the working of sequential circuits and memory elements.

Unit I **[6 Hrs]**

Introduction to Computing: Evolution of computers, Generations of computers (I to V), Classification of computers (Analog, Digital, Hybrid), Functional units of a computer system (Input unit, Output unit, Memory unit, Control unit, ALU), Primary and secondary memory, Storage devices, Overview of operating systems and their functions, Types of software (System, Application, Utility), Introduction to programming languages (Low-level and High-level), Translators – Assembler, Compiler, Interpreter.

Unit II **[9 Hrs]**

Number Systems and Binary Arithmetic: Decimal, Binary, Octal and Hexadecimal number systems, Inter-conversion between number systems, Binary arithmetic (Addition and Subtraction using 1's and 2's complement), Signed and unsigned numbers, Fixed-point representation (basic concept), BCD code, ASCII and Unicode, Introduction to error detection codes – Parity bit and basic idea of Hamming code, Representation of characters and data in memory.

Unit III **[9 Hrs]**

Boolean Algebra and Logic Gates: Basic postulates and theorems of Boolean algebra, De Morgan's Theorems, Duality principle, Simplification of Boolean expressions using algebraic methods, Canonical forms – Sum of Products (SOP) and Product of Sums (POS), Logic gates (AND, OR, NOT, NAND, NOR, XOR, XNOR), Universal gates and their realization, Implementation of Boolean functions using logic gates, Karnaugh Map (2 and 3 variable simplification).

Unit IV **[9 Hrs]**

Combinational Circuits: Introduction to combinational circuits, Half Adder and Full Adder, Half Subtractor and Full Subtractor, Binary parallel adder, Multiplexer and Demultiplexer, Encoder and Decoder, Code converters (Binary to Gray and Gray to Binary), Applications of combinational circuits in digital systems.

Unit V **[12 Hrs]**

Sequential Circuits and Memory Elements: Introduction to sequential circuits, Difference between combinational and sequential circuits, Latches (SR latch), Flip-Flops (SR, JK, D, T), Characteristic and excitation tables, Counters (Asynchronous and Synchronous – basic design), Shift registers (SISO, SIPO, PISO, PIPO), Introduction to memory organization (RAM, ROM), Cache memory (basic concept), Importance of memory hierarchy in computing systems.

Text Books

Sr. No.	Title	Authors	Edition	Publisher
1	Digital Fundamentals	Thomas L. Floyd	Latest Edition	Pearson
2	Computer Fundamentals	P.K. Sinha & Priti Sinha	Latest Edition	BPB Publications

Reference Books

Sr. No.	Title	Authors	Edition	Publisher
1	Digital Logic and Computer Design	M. Morris Mano	Latest Edition	Pearson
2	Computer Organization and Architecture	William Stallings	Latest Edition	Pearson
3	Modern Digital Electronics	R.P. Jain	Latest Edition	McGraw Hill

SEMESTER I

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
26BCA101P	Foundations of Computing & Digital Logic Lab	-	-	2	1	25	25	50

Course Objectives	Course Outcomes
This course is intended ● To provide practical exposure to number systems and digital logic concepts. ● To implement Boolean expressions using logic gates. ● To design and verify combinational circuits. ● To analyze and simulate sequential circuits. ● To develop analytical and troubleshooting skills in digital systems.	**Students will be able to** 1. Perform number system conversions and binary arithmetic practically. 2. Verify Boolean laws and De Morgan's theorems using logic gates. 3. Design and implement combinational circuits. 4. Construct and analyze flip-flops and basic sequential circuits. 5. Simulate digital circuits using appropriate software/tools.

List of Practical Experiments

Experiment 1
Number system conversions (Decimal–Binary–Octal–Hexadecimal) and binary arithmetic (addition, subtraction using 2's complement).

Experiment 2
Verification of basic logic gates (AND, OR, NOT, NAND, NOR, XOR, XNOR) using truth tables.

Experiment 3
Verification of De Morgan's Theorems using logic gates.

Experiment 4
Implementation of Boolean expressions using universal gates (NAND/NOR only realization).

Experiment 5
Design and implementation of Half Adder and Full Adder circuits.

Experiment 6
Design and implementation of Half Subtractor and Full Subtractor circuits.

Experiment 7
Implementation of Multiplexer and Demultiplexer circuits.

Experiment 8
Implementation of Encoder and Decoder circuits.

Experiment 9
Verification of flip-flops (SR, JK, D, T) and construction of simple asynchronous counter.

Experiment 10
Mini Project (Simulation-Based Digital Circuit Design):
Design and simulate a small digital system (e.g., binary counter display, code converter, simple ALU component).

Use of Tools

- Digital circuit simulation using tools such as Logisim / Multisim / Equivalent open-source simulator.
- Introduction to circuit debugging using simulation features (signal tracing, waveform analysis).
- Basic exposure to AI-assisted code explanation tools for understanding logic expressions (conceptual awareness only).

SEMESTER I

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
26BCA102T	Mathematical Foundations for Computer Science	3	-	-	3	40	60	100

Course Objectives	Course Outcomes
This course is intended ● To develop logical reasoning and mathematical thinking skills. ● To introduce discrete mathematical structures used in computer science. ● To provide foundation in logic, relations, functions and combinatorics. ● To develop analytical problem-solving ability. ● To prepare students for advanced courses such as Data Structures and Algorithms.	**Students will be able to** 1. Apply propositional and predicate logic in computational problems. 2. Analyze relations and functions used in computer science. 3. Solve counting and combinatorial problems. 4. Represent and analyze graphs and trees. 5. Apply Boolean algebra concepts in digital systems.

Unit I **[9 Hrs]**

Propositional and Predicate Logic: Statements and propositions, Logical connectives, Truth tables, Tautologies and contradictions, Logical equivalence, Laws of logic, Normal forms (CNF and DNF), Predicate logic and quantifiers, Rules of inference, Proof techniques (Direct proof, Contradiction, Mathematical induction), Applications of logic in program correctness.

Unit II **[9 Hrs]**

Sets, Relations and Functions: Sets and set operations, Cartesian product, Relations and properties (Reflexive, Symmetric, Transitive), Equivalence relations and equivalence classes, Partial order relations and Hasse diagrams (basic), Functions – types (Injective, Surjective, Bijective), Composition and inverse of functions, Recursive definitions.

Unit III **[9 Hrs]**

Counting Techniques and Recurrence Relations: Basic counting principles, Permutations and combinations, Binomial theorem, Pigeonhole principle, Inclusion–Exclusion principle (basic idea), Recurrence relations (Linear recurrence with constant coefficients), Solving recurrence relations using iteration method, Applications in algorithm analysis.

Unit IV **[9 Hrs]**

Graph Theory and Trees: Graphs – definition and terminology, Types of graphs, Degree of a vertex, Paths and cycles, connected graphs, graph representations (Adjacency matrix and list), Trees and properties, Spanning trees, Binary trees (conceptual understanding), Applications in computer networks and data structures.

Unit V **[9 Hrs]**

Boolean Algebra and Algebraic Structures:

Boolean algebra and its properties, De Morgan's laws, Boolean functions, Canonical forms, Binary operations, Introduction to algebraic structures (Semigroup, Monoid, Group – basic concepts), Modular arithmetic, Applications in digital logic design.

Text Books

Sr. No.	Title	Authors	Edition	Publisher
1	Discrete Mathematics and Its Applications	Kenneth H. Rosen	Latest Edition	McGraw Hill
2	Discrete Mathematical Structures	Bernard Kolman	Latest Edition	Pearson

Reference Books

Sr. No.	Title	Authors	Edition	Publisher
1	Discrete and Combinatorial Mathematics	R.P. Grimaldi	Latest Edition	Pearson
2	Graph Theory with Applications	Narsingh Deo	Latest Edition	PHI
3	Discrete Mathematics for Computer Science	J.P. Tremblay	Latest Edition	McGraw Hill

SEMESTER I

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
26BCA102P	Mathematical Foundations for Computer Science Lab	-	-	2	1	25	25	50

Course Objectives	Course Outcomes
This course is intended • To provide practical understanding of discrete mathematical concepts. • To apply logic and set theory in computational problems. • To solve combinatorial and graph-based problems algorithmically. • To develop analytical and proof-based thinking skills. • To strengthen mathematical foundation required for programming and algorithms.	**Students will be able to** 1. Construct and verify truth tables for logical expressions. 2. Analyze relations and functions computationally. 3. Solve counting and recurrence problems programmatically. 4. Represent and analyze graphs using suitable methods. 5. Apply Boolean algebra concepts in logic simplification tasks.

List of Practical Experiments

Experiment 1
Construction of truth tables for logical expressions and verification of logical equivalence.

Experiment 2
Implementation of logical operations and verification of De Morgan's Laws using tabular methods.

Experiment 3
Programs to perform set operations (Union, Intersection, Difference, Power set).

Experiment 4
Representation and analysis of relations (Reflexive, Symmetric, Transitive) using matrix representation.

Experiment 5
Verification of properties of functions (Injective, Surjective, Bijective).

Experiment 6
Programs for permutations and combinations using formula-based and iterative methods.

Experiment 7
Implementation of recurrence relation using iterative approach (e.g., Fibonacci sequence).

Experiment 8
Graph representation using adjacency matrix and adjacency list.

Experiment 9
Implementation of basic graph traversal concept (conceptual demonstration level).

Experiment 10
Boolean expression simplification using algebraic rules and validation through truth table.

Tools and Software

- C programs for mathematical problem implementation.
- Spreadsheet tools for truth table generation and combinatorial verification.
- Graph visualization tools (optional demonstration).

SEMESTER I

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
26BCA103T	Programming Fundamentals with C	3	-	-	3	40	60	100

Course Objectives	Course Outcomes
This course is intended ● To introduce the fundamentals of structured programming. ● To develop problem-solving skills using algorithms and flowcharts. ● To implement programs using C language constructs. ● To understand functions, arrays, pointers, and structures. ● To develop debugging and program testing skills.	**Students will be able to** 1. Develop algorithms and flowcharts for computational problems. 2. Write C programs using control statements and functions. 3. Apply arrays, strings, and pointers in program design. 4. Implement structures and file handling concepts. 5. Analyze, debug, and optimize C programs.

Unit I **[9 Hrs]**

Introduction to Programming and C Basics: Problem-solving methodology, Algorithm and flowchart, Structure of a C program, Compilation and execution process, Data types (int, float, char, double), Variables and constants, Operators (Arithmetic, Relational, Logical, Assignment, Bitwise – introduction), Input and Output functions (printf, scanf), Control structures – if, if-else, nested if, switch, while, do-while, for loops, Simple programs based on decision-making and looping.

Unit II **[9 Hrs]**

Functions and Modular Programming: Concept of functions, Function declaration and definition, Function prototypes, Call by value, Scope and lifetime of variables (local and global), Storage classes (auto, static, extern, register), Recursive functions, Header files, Writing modular programs using functions.

Unit III **[9 Hrs]**

Arrays and Strings: One-dimensional arrays, Two-dimensional arrays, Matrix operations (addition, multiplication – basic), Passing arrays to functions, Strings and string handling functions (strlen, strcpy, strcat, strcmp), Array of strings, Applications of arrays in data processing.

Unit IV **[9 Hrs]**

Pointers and Structures: Introduction to pointers, Pointer arithmetic, Pointers and arrays, Pointers to functions (basic concept), Dynamic memory allocation (malloc, calloc, free), Structures and unions, Array of structures, Nested structures, Passing structures to functions.

Unit V **[9 Hrs]**

File Handling and Applications: Concept of files in C, File operations (fopen, fclose, fprintf, fscanf, fread, fwrite), Text and binary files, Command line arguments (basic introduction), Error handling in C programs, Development of simple file-based applications such as student record management or inventory system.

Text Books

Sr.No.	Title	Authors	Edition	Publisher
1	Programming in ANSI C	E. Balagurusamy	Latest Edition	McGraw Hill
2	The C Programming Language	Kernighan & Ritchie	Latest Edition	Pearson

Reference Books

Sr.No.	Title	Authors	Edition	Publisher
1	Let Us C	Yashavant Kanetkar	Latest Edition	BPB Publications
2	C Programming: A Modern Approach	K.N. King	Latest Edition	Norton
3	Problem Solving and Program Design in C	Jeri R. Hanly & Elliot B. Koffman	Latest Edition	Pearson

SEMESTER I

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
26BCA103P	Programming Fundamentals with C Lab	-	-	2	1	25	25	50

Course Objectives	Course Outcomes
This course is intended ● To provide hands-on experience in C programming. ● To implement algorithms using C language constructs. ● To apply arrays, functions, and pointers in practical problems. ● To develop structured programming practices. ● To enhance debugging and logical reasoning skills.	**Students will be able to** 1. Write and execute C programs for basic computational problems. 2. Implement control structures effectively. 3. Develop programs using arrays, functions, and recursion. 4. Apply pointers and structures in program design. 5. Perform file handling operations in C.

List of Practical Experiments

Experiment 1
Program to perform basic arithmetic operations and formatted input/output.

Experiment 2
Programs using decision control statements (if-else, nested if, switch).

Experiment 3
Programs using looping constructs (for, while, do-while) for pattern printing and number-based problems.

Experiment 4
Program to demonstrate use of functions (user-defined functions for arithmetic operations).

Experiment 5
Program to implement recursive functions (e.g., factorial, Fibonacci series).

Experiment 6
Programs using one-dimensional arrays (searching, sorting, finding maximum/minimum).

Experiment 7
Programs using two-dimensional arrays (matrix addition and multiplication).

Experiment 8
Programs demonstrating string operations using built-in string functions.

Experiment 9
Programs using structures (student record management using structure).

Experiment 10
File handling program (creating, writing, reading, updating records in a file).

Mini Application (Internal Assessment Component)

Development of a small menu-driven application such as:

- Student record management
- Simple banking system
- Inventory management system

Tools and Software

- GCC Compiler / Turbo C / Code::Blocks / VS Code (C extension)
- Debugging using breakpoints and step execution
- Version control awareness (basic exposure)
- *Use of AI-assisted debugging tools, Code completion tools (GitHub Copilot concept)

SEMESTER I

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
26BCA104T	Indian Knowledge System	2	-	-	2	20	30	50

Course Objectives	Course Outcomes
This course is intended ● To introduce the foundations and scope of the Indian Knowledge System (IKS). ● To understand India's contributions to science, mathematics, and philosophy. ● To explore ethical and sustainable principles in Indian thought. ● To appreciate the relevance of IKS in modern education and society. ● To promote value-based and culturally rooted learning.	**Students will be able to** 1. Explain the basic concepts and sources of the Indian Knowledge System. 2. Identify major contributions of ancient Indian scholars in science and mathematics. 3. Interpret Indian philosophical and ethical values. 4. Relate traditional ecological knowledge to sustainability. 5. Appreciate the contemporary relevance of IKS in nation-building.

Unit I **[10 Hrs]**

Introduction to Indian Knowledge Traditions: Meaning and scope of Indian Knowledge System (IKS), Ancient education system – Gurukul system, Major ancient universities (Takshashila, Nalanda, Vikramshila), Vedas and Upanishads – overview, Knowledge classification in Indian tradition, Sanskrit as a scientific language (conceptual overview), Role of knowledge transmission through oral and written traditions.

Unit II **[10 Hrs]**

Contributions in Science and Mathematics: Indian contributions in Mathematics (Zero, Decimal system, Algebra – Aryabhata, Brahmagupta, Bhaskara), Astronomy and calendrical science, Ayurveda and traditional medicine, Architecture and engineering (Temple architecture, Vastu Shastra – overview), Metallurgy and ancient technologies (Iron Pillar of Delhi), Contributions in logic and linguistics (Panini's grammar – brief introduction).

Unit III **[10 Hrs]**

Philosophy, Ethics and Contemporary Relevance: Schools of Indian philosophy (Nyaya, Vaisheshika, Sankhya – basic overview), Concepts of Dharma, Karma and Yoga, Ethics in Indian tradition, Value-based living and societal harmony, Relevance of Indian knowledge systems in modern education, Sustainable practices in traditional Indian society.

Text Books

Sr. No.	Title	Authors	Edition	Publisher
1	Indian Knowledge Systems	B. Mahadevan, Vinayak Rajat Bhat & Nagendra Pavana R.N.	Latest Edition	PHI Learning
2	Indian Knowledge System	Kapil Kapoor	Latest Edition	D.K. Printworld

Reference Books

Sr.No.	Title	Authors	Edition	Publisher
1	The Wonder That Was India	A.L. Basham	Latest Edition	Picador
2	Indian Philosophy	S. Radhakrishnan	Latest Edition	Oxford University Press

SEMESTER I

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
26BCA105P	Digital Productivity Tools (IT Skills Lab)	-	-	4	2	50	-	50

Course Objectives	Course Outcomes
This course is intended ● To develop essential digital literacy and productivity skills. ● To provide hands-on training in office automation tools. ● To enhance document preparation and presentation skills. ● To enable effective data organization and analysis using spreadsheets. ● To create awareness about responsible use of AI-powered productivity tools.	**Students will be able to** 1. Prepare professional documents using word processing software. 2. Create and analyze spreadsheets for data processing. 3. Design effective presentations. 4. Manage digital communication and collaboration tools. 5. Use AI-assisted productivity features responsibly and effectively.

Module I
(Word Processing and Documentation Skills)

- Creating and formatting documents, Styles, templates and page layout, Tables, images, charts and references, Mail merge and document automation, Resume and formal letter drafting, AI-assisted grammar and formatting tools (awareness and responsible usage)

Module II
(Spreadsheets and Data Management)

- Spreadsheet basics and data entry, Formulas and functions (SUM, AVERAGE, IF, COUNT, VLOOKUP – basic), Sorting, filtering and data validation, Charts and graphical representation, Basic data analysis using pivot tables, AI-assisted formula suggestions (awareness level)

Module III
(Presentations and Digital Collaboration)

- Designing effective presentations, Slide master and themes, Animations and transitions, Inserting multimedia elements, Introduction to cloud-based collaboration tools, Email etiquette and digital communication, Responsible use of AI tools for presentation design and content refinement

Practical Assignments

1. Preparation of formatted academic report.
2. Creation of resume using template and formatting tools.
3. Spreadsheet-based student result analysis.
4. Data visualization using charts.
5. Preparation of professional presentation on assigned topic.
6. Mini Project: Integrated digital portfolio (document + spreadsheet + presentation).

Tools and Software

- MS Office / LibreOffice / Google Workspace
- Cloud storage platforms
- Built-in AI assistance features in productivity tools (awareness level)

Text Books

Sr. No.	Title	Authors	Edition	Publisher
1	Microsoft Office 365 Step by Step	Joan Lambert	Latest Edition	Microsoft Press
2	Computer Fundamentals	P.K. Sinha & Priti Sinha	Latest Edition	BPB Publications

Reference Books

Sr. No.	Title	Authors	Edition	Publisher
1	Using Information Technology	Brian K. Williams & Stacey Sawyer	Latest Edition	McGraw Hill
2	Digital Literacy	Paul Gilster	Latest Edition	Wiley

SEMESTER I

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
26BCA106T	Environmental Sustainability	2	-	-	2	20	30	50

Course Objectives	Course Outcomes
This course is intended ● To create awareness about environmental issues and sustainability. ● To understand ecosystem structure and natural resource management. ● To examine environmental pollution and control measures. ● To promote sustainable development practices. ● To encourage responsible environmental citizenship.	**Students will be able to** 1. Explain basic ecological concepts and environmental components. 2. Analyze causes and effects of environmental pollution. 3. Identify strategies for sustainable resource management. 4. Develop awareness toward environmental responsibility and green practices. 5. Adopt environmentally responsible practices in daily life.

Unit I **[10 Hrs]**

Ecosystems and Natural Resources:

Definition and scope of environmental studies, Structure and function of ecosystem, Types of ecosystems (Forest, Grassland, Desert, Aquatic), Food chains and food webs, Ecological pyramids, Biogeochemical cycles (Carbon, Nitrogen, Water cycle), Natural resources – renewable and non-renewable, Water resources, Forest resources, Energy resources, Conservation of natural resources.

Unit II **[10 Hrs]**

Environmental Pollution and Climate Change:

Air pollution – sources, effects and control measures, Water pollution – causes and prevention, Soil pollution and solid waste management, Noise pollution, E-waste management, Global warming and climate change, Ozone layer depletion, Acid rain, Carbon footprint, Role of technology in environmental monitoring (basic awareness).

Unit III **[10 Hrs]**

Sustainable Development and Environmental Governance:

Concept of sustainable development, Sustainable Development Goals (SDGs), Environmental laws and policies in India, Environmental Protection Act, Role of government and NGOs, Environmental Impact Assessment (EIA), Biodiversity conservation, Green computing (basic concept), Individual responsibility towards environment.

Text Books

Sr.No.	Title	Authors	Edition	Publisher
1	Environmental Studies	Erach Bharucha	Latest Edition	Universities Press
2	Environmental Science	Cunningham & Cunningham	Latest Edition	McGraw Hill

Reference Books

Sr.No.	Title	Authors	Edition	Publisher
1	Environmental Science and Engineering	Anubha Kaushik & C.P. Kaushik	Latest Edition	New Age International
2	Textbook of Environmental Studies	Deeksha Dave & E. Sai Baba Reddy		

SEMESTER I

Course Code	Course Name	Th	Tu	Pr	Credits	Evaluation		
						CA	ESE	Total
26BCA107T	Professional English & Communication Skills	2	-	-	2	20	30	50

Course Objectives	Course Outcomes
This course is intended ● To enhance English language proficiency for academic and professional contexts. ● To develop effective verbal and non-verbal communication skills. ● To improve business writing and presentation skills. ● To strengthen listening, speaking, reading, and writing (LSRW) competencies. ● To build confidence for interviews and professional interactions.	**Students will be able to** 1. Communicate effectively in professional and academic settings. 2. Demonstrate proficiency in business writing and formal correspondence. 3. Deliver structured presentations with clarity and confidence. 4. Apply active listening and interpersonal communication skills. 5. Prepare for interviews and group discussions effectively.

Unit I **[10 Hrs]**

Fundamentals of Communication

Process of communication, Types of communication (Verbal and Non-verbal), Barriers to communication and overcoming strategies, Listening skills and techniques, Reading comprehension strategies, Vocabulary development, Grammar essentials (Tenses, Subject-Verb Agreement, Articles, Prepositions), Sentence formation and correction.

Unit II **[10 Hrs]**

Professional Writing Skills

Business correspondence (Formal letters, Email writing, Notices), Resume and cover letter writing, Report writing (structure and formatting), Paragraph writing and précis writing, Technical writing basics, Writing meeting agenda and minutes, Ethical use of digital writing tools and responsible use of AI-based grammar assistance tools (awareness level).

Unit III **[10 Hrs]**

Presentation and Interpersonal Skills

Public speaking techniques, Presentation planning and delivery, Use of visual aids, Group discussion skills, Interview skills and mock interviews, Body language and professional etiquette, Workplace communication and teamwork, Digital communication etiquette (Email, virtual meetings).

Text Books

Sr.No.	Title	Authors	Edition	Publisher
1	Business Communication	K.K. Sinha	Latest Edition	Galgotia
2	Communication Skills	Sanjay Kumar & Pushp Lata	Latest Edition	Oxford University Press

Reference Books

Sr.No.	Title	Authors	Edition	Publisher
1	Technical Communication	Meenakshi Raman & Sangeeta Sharma	Latest Edition	Oxford University Press
2	Effective Business Communication	Herta Murphy	Latest Edition	McGraw Hill