BBA (Information Technology Management)

BBA (ITM) Semester-I

Course Code	UM1SEBBI03	Title of the Course	LOGICAL ORGANIZATION OF COMPUTER
Total Credits of the Course	2	Hours per Week	2

Course Objectives:	1. To provide basic understanding of logical organization 2. To impart fundamental knowledge on processors, memory, input/output, instructions and flow of control. 3. To introduce fundamental concepts related to gates and logic circuits used in a digital computer.

Course Content		
Unit	Description	Weightage* (%)
1.	**Concepts of Number Systems and overview of Processors Functions** – Number Systems (Binary, Octal, Hexadecimal, Decimal) and its Conversions, Arithmetic Operations (Addition only) – Number Representation (Integer) Signed & Magnitude Method, 1's Complement Method, 2's Complement Method) – Number Representation (Floating Point) Single Precision Method & Double Precision Method)(using IEEE only) – Character codes (ASCII, EBCDIC, UNICODE) – Error Detection and Correction Codes. – Instruction Execution Cycle – CPU organization (Data Path of typical Von Neumann Machine) – Parallel Instruction Execution – Parallel Machines, Array Processors, Pipeline Machines	50
2.	**Logic Gates, Boolean Algebra and Overview of Computer hardware** – GATES (AND, OR, NOT, NAND, NOR, XOR, XNOR, Bubbled AND, Bubbled OR) – De Morgan's Theorems – Boolean Algebra, Truth Tables – Memory (Primary, Secondary) (RAM, ROM) – Hard Disk, Floppy Disk, CDROM – Printers (Laser, Inkjet, Dot Matrix) – VDU, Mouse, Keyboard – Scanners	50

Teaching-Learning Methodology	Blended learning approach incorporating traditional classroom teaching and online/ICT-based teaching practices.

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Quizzes, Seminars, Assignments, Attendance (As per CBCS R.6.8.3)	15%
3.	University Examination	70%

Course Outcomes: Having completed this course, the learner will be able to	
1.	Understand various number systems, conversion, arithmetic operations of a Computer System
2.	Understand about processors, memory, I/O devices, Instructions executions
3.	Understanding about basic gates and logic circuits used in a digital computer.

Suggested References:	
Sr. No.	References
1.	V. Rajaraman : Fundamentals of Computers, Prentice Hall Of India Pvt. Ltd.
2.	Tanenbauma S. Structured Computer Organization, Prentice Hall Of India Pvt. Ltd.
3.	Malvino A. P.: Digital Computer Electronics, Tata McGraw Hill Publication Co. Ltd.

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