SARDAR PATEL UNIVERSITY
Programme & Subject: BBA (Information Technology Management)
(3 Years)
Semester: I
Syllabus with Effect from: June-2018

Paper Code: UM01DBBI24	Total Credits: 3
Title of Paper: Computer Organisation	

Unit	Description in detail	Weightage (%)
I	**Number System and its Arithmetic** Introduction to Number Systems - Conversions: Decimal, Binary, Octal, Hexadecimal - Binary Arithmetic - Character codes - ASCII, EBCDIC, UNICODE - Representation of Numbers: (Integer)- Signed magnitude method, l's complement method, 2's complement method, Excess Notation method - Representation of Float Numbers: Single precision, Double precision method - Error Detection and Correction Code: Parity bit method, Hamming code	**25%**
II	**Gates and Boolean algebra** Gates - AND Gate, OR Gate, NOT Gate, NAND Gate, NOR Gate, XOR Gate, XNOR Gate, Bubbled AND Gate, Bubbled OR Gate - Boolean algebra - Truth Tables - De Morgan's Theorems	**25%**
III	**Processor Functions and Components** Instruction Execution Cycle - CPU Organization: Data path of a typical VON-Neumann machine - Functioning of a processor of hypothetical computer - Parallel Instruction Execution - Categories of Parallel Machines, Array Processors, Multifunctional Units, Pipeline Machines, Multiprocessors - Direct Addressing, Indirect Addressing, Register Addressing, Stack Addressing	**25%**
IV	**Overview of I/O and Memory Devices** Overview of I/O devices: Hard Disk, Floppy Disk, CD-ROM (Introduction, Advantages and Disadvantages) - Introduction to RAM, ROM, PROM, EEPROM - Printers (Line, Dot Matrix, Inkjet, Laser) – VDU – Mouse – Keyboard – Scanners – Plotters - OCR (MICR, Barcode Reader)	**25%**

Basic Text & Reference Books

- Tanenbaum A S: Structured Computer Organization Prentice-Hall of India Pvt. Ltd.
- Malvino Brown: Digital Computer Electronics, 3rd Edition
- Malvino and Leach: Digital Principles and Applications, 4th Edition.
- Rajaraman V: Computer Fundamentals Prentice – Hall of India Pvt. Ltd.
- Sinha P K: Computer Fundamentals BPB Publi, (Second Edition)
- S.K.Basandra: Computers Today Galgotia Publi.
- Peter Norton: Introduction to Computers TMH.