Paper Code: US01CIIT23	Total Credit: 4
Title Of Paper: Computer Organization and Digital Electronics	

Unit	Description in detail	Weightage (%)
I	**Introduction to Computer System** What is Computer System?, Block Diagram of Simple Computer with its units, Hardware and Software, Generation of Computer System, Input Devices (Keyboard & Mouse), Output Devices (Monitor & Printer), Memory Unit (Primary & Secondary Memory), Storage Devices (Floppy Disk, CD, DVD, HDD and Pen Drive)	25%
II	**Number System** What is Number System?, Binary Number System, Octal Number System Decimal Number System, Hexadecimal Number System, Conversion of Number System: Binary to Octal, Binary to Decimal, Binary to Hexadecimal, Decimal to Binary, Decimal to Hexadecimal, Decimal to Octal, Octal to Binary, Octal to Hexadecimal, Octal to Decimal, Hexadecimal to Binary, Hexadecimal to Octal, Hexadecimal to Decimal.	25%
III	**Basic Digital Logic Circuit - I** Boolean Algebra, Logic Gates, Truth Table, Circuit Equivalent , De – Morgan's Theorems, Half Adder and Full Adder	25%
IV	**Basic Digital Logic Circuit – II** Encoder (8 X 3 line), Decoder (3 X 8 line), Multiplexer (4 X 1, 8 X 1, and 16 X 1 line), De-Multiplexer (1 X 4, 1 X 8, 1 X 16 line), Comparator, Flip Flop , RS Flip Flop , D Flip Flop , Ring Counter , JK Flip Flop, JK Master Slave Flip Flop, Control Buffer Register.	25%

Basic Text & Reference Books:-

1.   Tanenbaum A.S. : Structured Computer Organization 3rd Edition, Prentice-Hall of India Pvt. Ltd. 1993.
2.   Rajaraman V : Computer Fundamentals, Prentice-Hall of India Pvt. Ltd.
3.   Malvino A.P. Digital Computer Electronics, 2nd Edition, Tata MacGraw, Hill Pub.Co. Ltd. New Delhi 1990.
4.   Gothmann, Willam H. : Digital Electronics – An Introduction to Theory and Practice, 2nd Edition, PHI, 1982

Books for Additional Reading :

1.   Hall Douglas V.: Microprocessors and Interfacing – Programming and Hardware, McGraw Hill Book Company, 1986
2.   M.M.Mano : Computer System Architecture, 3rd Edition, Pearson Education, 2000.