Lesson Plan

B.Sc II Sem Computer Science

PAPER-II - Logical Organization of Computers

Teacher : Neelam

April 2021

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| Information Representation: Number Systems, Binary Arithmetic, Fixed-point and Floating point representation of numbers, BCD Codes, Error detecting and correcting codes, Character Representation – ASCII, EBCDIC |

May 2021

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| Binary Logic: Boolean Algebra, Boolean Theorems, Boolean Functions and Truth Tables, Canonical and Standard forms of Boolean functions, Simplification of Boolean Functions – Venn Diagram, Karnaugh Maps. UNIT - III Digital Logic: Basic Gates – AND, OR, NOT, Universal Gates – NAND, NOR, Other Gates – XOR, XNOR etc. |

June 2021

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| Combinational Circuits: Half-Adder, Full-Adder, Half Subtractor, Full-Subtractor, Encoders, Decoders, Multiplexers, De-multiplexers, Comparators, Code Converters. Sequential Logic: Characteristics, Flip-Flops, Clocked RS, D type, JK, T type and Master Slave flip-flops. State table, state diagram. Flip-flop excitation tables Shift registers : serial in parallel out and parallel in parallel out.. |

July 2021

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| Designing counters – Asynchronous and Synchronous Binary Counters, Modulo-N Counters and Up-Down Counters |