

Lesson Plan July-Dec 2018

Name: Preeti Aggarwal

Class: BCA 1st Sem

Subject: LOGICAL ORGANIZATION OF COMPUTER-I

Paper Code: BCA-104

| Month | Syllabus to be covered |
|-------------------------|---|
| 16 July to 21 July | Unit-I : Information Representation: Number Systems (binary, octal, hexadecimal) |
| 23 July to 28 July | Binary Arithmetic-Addition, Subtraction, Multiplication, division |
| 30 July to 4 Aug | Fixed-point and Floating point representation of numbers, BCD Codes |
| 6 Aug to 11 Aug | Error detecting and correcting codes (hamming code) |
| 13 Aug to 18 Aug | Character Representation – ASCII, EBCDIC, Unicode. |
| 20 Aug to 25 Aug | Numerical Practice, Unit 2: Binary Logic: Boolean Algebra Assignment-1 |
| 27 Aug to 1 Sep | Boolean Theorems, Boolean Functions and Truth Tables, |
| 3 Sep to 8 Sep | Canonical and Standard forms of Boolean functions, Simplification of Boolean Functions – Venn Diagram, Karnaugh Maps. Test 1: Unit 1 and 2 |
| 10 Sep to 15 Sep | Unit-3: Digital Logic: Introduction to digital signals, Basic Gates – AND, OR, NOT |
| 17 Sep to 22 Sep | Universal Gates and their implementation – NAND, NOR, Other Gates – XOR, XNOR etc. NAND, NOR, AND-OR-INVERT and OR-AND-INVERT implementations of digital circuits |
| 24 Sep to 29 Sep | Combinational Logic – Characteristics, Design Procedures, analysis procedures, Multilevel NAND and NOR circuits. Assignment 2 |
| 1 Oct to 6 Oct | Unit-4: Combinational Circuits: Half-Adder, Full-Adder, Half-Subtractor, Full-Subtractor, Parallel binary adder/subtractor |
| 8 Oct to 13 Oct | Encoders, Decoders, Multiplexers, Demultiplexers, |
| 15 Oct to 20 Oct | Comparators, Code Converters, BCD to Seven-Segment Decoder |
| 22 Oct to 27 Oct | Practice Numericals |
| 29 Oct to 3 Nov & 5 Nov | Revision Test 2-Unit 3 and 4 |
| 6 Nov to 13 Nov | Vacations |

Lesson Plan July-Dec 2018

Name: Preeti Aggarwal

Class: M.Sc. 1st Sem

Subject: DISCRETE MATHEMATICS

Paper Code: 16MCS21C1

| Month | Syllabus to be covered |
|-------------------------|--|
| 1 Aug to 4 Aug | Unit-1: Sets: Sets, Subsets, Equal Sets Universal Sets, Finite and Infinite Sets, |
| 6 Aug to 11 Aug | Operation on Sets, Union, Intersection and Complements of Sets, Cartesian Product, Cardinality of Set, Simple Applications. |
| 13 Aug to 18 Aug | Relations and functions: Properties of Relations |
| 20 Aug to 25 Aug | Equivalence Relation, Partial Order Relation, Function: Domain and Range, Onto, Into and One to One Functions |
| 27 Aug to 1 Sep | Composite and Inverse Functions Unit-2: Propositional Logic: Proposition logic, basic logic, Logical Connectives, truth tables Assignment-1 |
| 3 Sep to 8 Sep | tautologies, contradiction, Logical implication, Logical equivalence |
| 10 Sep to 15 Sep | Normal forms, Theory of Inference and deduction. |
| 17 Sep to 22 Sep | Predicate Calculus: Predicates and quantifiers. Mathematical Induction. Test: Unit 1 and 2 |
| 24 Sep to 29 Sep | Unit-3: Matrices: Definition, Types of Matrices, Addition, Subtraction, Scalar Multiplication |
| 1 Oct to 6 Oct | Multiplication of Matrices, Adjoint of a matrix |
| 8 Oct to 13 Oct | Inverse of a matrix. Determinants: Definition, Minors, Cofactors, Properties of Determinants, |
| 15 Oct to 20 Oct | Applications of determinants in finding area of triangle, Solving a system of linear equations. Assignment-2 Unit-4: Introduction to defining language, Kleene Closure, Arithmetic expressions |
| 22 Oct to 27 Oct | Chomsky Hierarchy, Regular expressions. Conversion of regular expression to Finite Automata, NFA, DFA, Conversion of NFA to DFA |
| 29 Oct to 3 Nov & 5 Nov | FA with output: Moore machine, Mealy machine. Revision Test: Unit 3 and 4 |
| 6 Nov to 13 Nov | Vacations |

Lesson Plan July-Dec 2018

Name: Preeti Aggarwal

Class: B.Com(H) 3rd Sem

Subject: Basics of Information Technology

Paper Code: BCH-3-06

| Month | Syllabus to be covered |
|--------------------|---|
| 16 July to 21 July | Unit-1 Essentials of Computers: Concept of data, information and data processing, Levels or type of information, Uses of information |
| 23 July to 28 July | Business data Processing Cycle, Methods of data processing, Application of Electronic data processing |
| 30 July to 4 Aug | Memory and Mass Storage Devices: Introduction of Memory System Types of Memory-Primary and Secondary Memory, RAM and ROM, |
| 6 Aug to 11 Aug | Types of Secondary Storage Devices; Software Concepts: Types of Software and their role |
| 13 Aug to 18 Aug | System Languages and Translators, Functions and Types an Operating System Assignment-1 |
| 20 Aug to 25 Aug | Unit-2: Data Communications: Basic elements of a Communication System, Forms of Data Transmission |
| 27 Aug to 1 Sep | Data transmission speed, Modes of Data Transmission:Analog and Digital data transmissions, Data Transmission Media; Wire Cables, Microwave, Fiber-optics, Communication Satellites. |
| 3 Sep to 8 Sep | Emerging Trends in IT: Electronic Commerce(E-Commerce), Types of E-Commerce, Advantages and Disadvantages of E-commerce, Application of E-commerce, process in ecommerce, Types of an Electronic Payment System |
| 10 Sep to 15 Sep | Security issues in E-commerce, Security Schemes; Electronic data Interchange (EDI); Mobile communication, Bluetooth Communication, Infrared communication, Smart Card. Test: Unit 1 and 2 |
| 17 Sep to 22 Sep | Unit-3: Computer Networks: Introduction to Computer Network, Types of Network; Local Area Network, Wide Area Network Types of Public and Private Network |
| 24 Sep to 29 Sep | Network Topology; Internet and its Application, History of Internet, Benefits of Internet, ISP, Internet Accounts, Internet Addressing |
| 1 Oct to 6 Oct | Information Technology: Impact of IT on Business environment; Applications of IT. Multimedia: Concept of Multimedia, Multimedia Components, Multimedia Applications Assignment-2 |
| 8 Oct to 13 Oct | Unit-4: Presentation with Power- Point: Features of Power-point, Creating presentation the easy way, Working with different views |
| 15 Oct to 20 Oct | working with graphics in Power Point, Sound effects and Animations effects, Printing in Power-point. Introduction to Accounting Packages-Tally: Features of Tally |

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| 22 Oct to 27 Oct | Preparation of Vouchers, Salary statement, Maintaining of Inventory records, Maintenance of Accounting Books and final Accounts, Generating and Printing reports. |
| 29 Oct to 3 Nov & 5 Nov | Revision Test: Unit 3 and 4 |
| 6 Nov to 13 Nov | Vacations |