Government College Aharwala, Bilaspur

Lesson Plan

(Session- 2021-22 (Even Semester)

Name of Teacher: Dr. Satnam Singh

Department : Computer Science

Class & Semester: B.C.A. 4TH Sem.

Subject & Code: BCA 243 E- Commerce

APRIL

Introduction to E-Commerce:-Business operations; E-commerce practices vs. traditional business practices; concepts of b2b, b2c,c2c,b2g,g2h,g2c; Features of E-Commerce, Types of Ecommerce Systems, Elements of E-Commerce, principles of E-Commerce, Benefits and Limitations of E-Commerce. Management Issues relating to e-commerce. Operations of E-commerce: Credit card transaction; Secure Hypertext Transfer Protocol (SHTP) ; Electronic payment systems; Secure electronic transaction (SET) ; SET s encryption; Process; Cybercash; Smart cards; Indian payment models. Applications in governance:

MAY

EDI in governance; E-government; E-Governance applications of Internet; concept of government —to- business, business-to-government and citizen-to-government; E-governance models; Private sector interface in [-governance. Applications in B2C: Consumers shopping procedure on the Internet; Impact on disinter mediation and re-intermediation; Global market; Strategy of traditional department stores. Products in b2c model; success factors of e-brokers; Broker-based services on-line; On-line travel tourism services; Benefits and impact of e-commerce on travel industry; Deal estate market; online stock trading and its benefits; Online banking and its benefits; On- line financial services and their future; E-auctions — benefits, implementation and impact.

JUNE

Applications in B2B: Key technologies for b2b; architectural models of b2b, characteristics of the supplier —oriented marketplace, buyer-oriented marketplace and intermediary-oriented marketplace; Just In Time delivery in b2b; Internet-based EDI from traditional EDI; Marketing Issues in b2b. Emerging Business models: Retail model; Media model; advisory model, made-to-order manufacturing model; Do-it- yourself model; Information service model; Emerging hybrid models; Emerging models in India, Internet & E-Commerce scenario in India; Internet security Issues; Legal aspects of E-commerce

Government College Aharwala, Bilaspur

Lesson Plan

(Session- 2021-22 (Even Semester)

Name of Teacher: Dr. Satnam Singh

Department : Computer Science

Class & Semester: B.C.A. 6TH Sem.

Subject & Code: BCA-361: Web Designing Using Advanced Tools

APRIL

Interactivity Tool - JavaScript: Introduction, Features, Data types, Operators, Statements, Functions, Event Handling, Use of Predefined Object and Methods, Frames, Windows, Tables, Images, Links Interactivity Tool - VBScript: Introduction, Features, Variables, Data Types, Numeric and Literal Constants, Arrays, Operators, Subroutine Procedures, Function Procedures, Control Statements, Strings, Message and Input Boxes, Date and Time, Event Handlers, Embedding VBScript in HTML

MAY

Interactivity Tool - Active Script Pages – Introduction, Features, Client-Server Model, Data Types, Decision Making Statements, Control statements, Use of Various Objects of ASP, Various Techniques of Connecting to Database Other Interactivity Tools - Macromedia Flash, Macromedia Dreamweaver, PHP: Basic Introduction and Features DHTML: Introduction, Features, Events, Dynamic Positioning, Layer Object, Properties of STYLE, Dynamic Styles, Inline Styles, Event Handlers; Cascading Style Sheets (CSS): Basic Concepts, Properties, Creating Style Sheets; Common Tasks with CSS: Text, Fonts, Margins, Links, Tables, Colors; Marquee; Mouseovers; Filters and Transitions; Adding Links; Adding Tables; Adding Forms; Adding Image and Sound; Use of CSS in HTML Documents Linking and Embedding of CSS in HTML Document

JUNE

Microsoft FrontPage: Introduction, Features, Title Bar, Menu bar, FrontPage Tool Bar, Style, FontFace and Formatting Bar, Scroll Bars XML: Introduction, Features, XML Support and Usage, Structure of XML Documents, Structures in XML, Creating Document Type Declarations, Flow Objects, Working with Text and Font, Color and Background Properties;

Government College Aharwala, Bilaspur

Lesson Plan

(Session- 2021-22 (Even Semester)

Name of Teacher: Dr. Satnam Singh

Department : Computer Science

Class & Semester: B.C.A. 6TH Sem.

Subject & Code: BCA-364: Internet Technologies

APRIL

Internet: Introduction; History; Internet Services; TCP/IP: Architecture, Layers, Protocols; TCP/IP model versus OSI Model; World Wide Web (WWW) - The Client Side, The Server Side, Creating and Searching Information on the Web, Popular Search Engines, URL, HTTP, Web Browsers, Chat & Bulletin Board, USENET & NNTP (Network News Transfer Protocol); Internet vs. Intranet; TCP, UDP and IP Protocols, Port Numbers; Format of TCP, UDP and IP; IPv4 addressing; The need for IPv6; IPv6 addressing and packet format;

MAY

TCP Services; TCP Connection Management; Remote Procedure Call; IP Address Resolution- DNS; Domain Name Space; DNS Mapping; Recursive and Iterative Resolution; Mapping Internet Addresses to Physical Addresses: ARP, RARP, DHCP; ICMP; IGMP; Application Layer: Electronic Mail: Architecture; Protocols - SMTP, MIME, POP, IMAP; Web Based Mail; File Access and Transfer: FTP, Anonymous FTP, TFTP, NFS; Remote Login using TELNET; Voice and Video over IP: RTP, RTCP, IP Telephony and Signaling, RSVP;

JUNE

Routing in Internet: RIP, OSPF, BGP; Internet Multicasting; Mobile IP; Private Network Interconnection: Network Address Translation (NAT), Virtual Private Network (VPN); Internet Management and SNMP; Internet Security: E-Mail Security; Web Security; Firewall; Introduction to IPSec and SSL;

Government College Aharwala, Bilaspur

Lesson Plan

(Session- 2021-22 (Even Semester)

Name of Teacher: Dr. Satnam Singh

Department : Computer Science

Class & Semester: B.C.A. 6TH Sem.

Subject & Code: BCA-366: Programming in Core Java

APRIL

Basic Principles of Object Oriented Programming, Introduction to Java, History and Features of Java, Java Virtual Machine (JVM), Java's Magic Bytecode; The Java Runtime Environment; Basic Language Elements: Lexical Tokens, Identifiers, Keywords, Literals, Comments, Primitive Data types, Operators, Assignments; Input/output in Java: Basics, I/O Classes, Reading Console Input, Control Structures in Java: Decision and Loop Control Statements Class and Object in Java: Defining Class in Java, Creating Objects of a Class, Defining Methods, Argument Passing Mechanism, Using Class and Objects, Constructors, Nested Class, Inner Class, Abstract Class,

MAY

Dealing with Static Members; Array & String in Java: Defining an Array, Initializing & Accessing Array, Multi – Dimensional Array, Defining String, Operation on Array and String, Creating Strings using String Class, Creating Strings using StringBuffer Class,; Polymorphism in Java: Basic Concept, Types, Overriding vs. Overloading, Implementation Extending Classes and Inheritance in Java: Benefits of Inheritance, Types of Inheritance in Java, Access Attributes, Inheriting Data Members and Methods, Role of Constructors in Inheritance, Use of "super"; Packages & Interfaces: Basic Concepts of Package and Interface, Organizing Classes and Interfaces in Packages, Defining Package, Adding Classes from a Package to Your Program, CLASSPATH Setting for Packages, Import Package, Naming Convention For Packages , Access Protection in Packages, Standard Packages

JUNE

Exception Handling in Java: The Idea behind Exception, Types of Exception, Use of try, catch, finally, throw, throws in Exception Handling, In-built and User Defined Exceptions, Checked and Un-Checked Exceptions, Catching more than one Exception; Applet in Java: Applet Basics, Applet Architecture, Applet Life Cycle, Applet Tag, Parameters to Applet, Embedding Applets in Web page, Creating Simple Applets; GUI Programming: Designing Graphical User Interfaces in Java, Components and Containers, Using Containers, Layout Managers, AWT Components, AWT Classes, AWT Controls,

Government College Aharwala, Bilaspur

Lesson Plan

(Session- 2021-22 (Even Semester)

Name of Teacher: Dr. Satnam Singh

Department : Computer Science

Class & Semester: B.A. 2ND Sem.

Subject & Code: CS-1 Programming in C

APRIL

Overview of C: History & Importance of C, Structure of a C Program. Elements of C: C character set, identifiers and keywords, Data types, Constants and Variables, Assignment statement, Symbolic constant. Input/output: Unformatted & formatted I/O function, Input functions (scanf(), getch(), getche(), getchar(), gets()), output functions (prinff(), putch(), putchar(), puts()). Operators & Expression: Arithmetic, relational, logical, bitwise, unary, assignment, conditional operators and special operators.

MAY

Arithmetic expressions, evaluation of arithmetic expression, type casting and conversion, operator hierarchy & associativity. Decision making & branching: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder, switch statement, goto statement.

JUNE

Decision making & looping: For, while, and do-while loop, jumps in loops, break, Storage classes in C: auto, extern, register and static storage class, their scope, storage, & lifetime. Arrays: Definition, types, initialization, processing an array.------ Structure and Union.

Government College Aharwala, Bilaspur

Lesson Plan

(Session- 2021-22 (Even Semester)

Name of Teacher: Dr. Satnam Singh

Department : Computer Science

Class & Semester: B.A. 2ND Sem.

Subject & Code: CS-2 Logical Organisation of Computer

APRIL

Information Representation: Number Systems, Binary Anthmetic, Fixed-point and Floating-point rep-resentation of numbers, BCD Codes, Error detecting and correcting codes. Character Representation - ASCII, EBCDIC. Binary Logic: Boolean Algebra. Boolean Theorems.

MAY

Boolean Functions and Truth Tables. Canonical and Standard forms of Boolean functions, Simplification of Boolean Functions - Venn Diagram, Kamaugh Maps. Digital Logic: Basic Gates - AND, OR, NOT, Universal Gates - NAND, NOR, Other Gates - XOR. XNOR etc. Combinational Circuits: Half-Adder, Full-Adder, Half-Subtractor, Full-Subtractor. Encod-ers. Decoders, Multiplexers, Demultiplexers, Comparators,

JUNE

Code Converters. Sequential Logic: Characteristics. Flip-Flops, Clocked RS. D type, JK, T type and Master-Slave tlic-flops. State table, state diagram. Flip-flop excitation tables Shift registers : serial in parallel out and parallel in parallel out.. Designing counters - Asynchronous and Synchronous Binary Counters, Modulo-N Counters and Up-Down Counters

Government College Aharwala, Bilaspur

Lesson Plan

(Session- 2021-22 (Even Semester)

Name of Teacher: Dr. Satnam Singh

Department : Computer Science

Class & Semester: B.Sc. (CS) 2ND Sem.

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APRIL

Overview of C: History & Importance of C, Structure of a C Program. Elements of C: C character set, identifiers and keywords, Data types, Constants and Variables, Assignment statement, Symbolic constant. Input/output: Unformatted & formatted I/O function, Input functions (scanf(), getch(), getche(), getchar(), gets()), output functions (prinff(), putch(), putchar(), puts()). Operators & Expression: Arithmetic, relational, logical, bitwise, unary, assignment, conditional operators and special operators.

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Arithmetic expressions, evaluation of arithmetic expression, type casting and conversion, operator hierarchy & associativity. Decision making & branching: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder, switch statement, goto statement.

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Decision making & looping: For, while, and do-while loop, jumps in loops, break, Storage classes in C: auto, extern, register and static storage class, their scope, storage, & lifetime. Arrays: Definition, types, initialization, processing an array.------ Structure and Union.

Government College Aharwala, Bilaspur

Lesson Plan

(Session- 2021-22 (Even Semester)

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Department : Computer Science

Class & Semester: B.Sc. (CS) 2ND Sem.

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