**Post Graduate Govt. College for Girls, Sector-42, Chandigarh**

**Teaching Plan (Even Semester) Session (2019-2020)**

**Class: BCA 2ND Sem**   **Name of the Teacher: Sudhir Kumar Sharma**

**Subject: C++ Period:6**

**Paper: BCA -16-204 Room No: 201**

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| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 09-01-2020 to 11-01-2020 | Introduction to Object Oriented Programming (OOP) , Difference between OOP and Procedure Oriented Programming. |
| Week 2 | 13-01-2020 to 18-01-2020 | Applications Object Oriented Programming (OOP), Its Benefits. Programming; Concepts: Object, Class and |
| Week 3 | 20-01-2020 to 25-01-2020 | Encapsulation, Data hiding, Abstraction, Polymorphism, Inheritance and Message passing. |
| Week 4 | 27-01-2020 to 01-02-2020 | Operators, Special operators: scope resolution operator, Member Dereferencing operators, Memory management operators, Manipulators |
| Week 5 | 03-02-2020 to 08-02-2020 | Type cast operator, Structure of a C++ Program and Classes and Objects : Class Declaration : Data Members, Member Functions, Private and Public members, |
| Week 6 | 10-02-2020 to 15-02-2020 | Creating Objects, Accessing class data members, Accessing member functions |
| Week 7 | 17-02-2020 to 22-02-2020 | Class Function Definition: Member Function definition inside the class declaration and outside the class declaration. |
| Week 8 | 24-02-2020 to 29-02-2020 | Friend function, inline function, Static members, Function Overloading, Arrays within a class. |
| Week 9 | 02-03-2020 to 05-03-2020 | Arrays of Objects; Objects as function arguments: Pass by value, Pass by reference, Pointers to Objects. |
| Mid Semester Exams (06-03-2020 to 13-03-2020) | | |
| Week 11 | 14-03-2020, 16-03-2020 to 21-03-2020 | Constructors: Declaration and Definition, Types of Constructors, (Default, Parameterized, Copy Constructors). Destructors: Definition and use. |
| Week 12 | 24-03-2020 to 28-03-2020 | Operator Overloading & Type Conversion: Conversion from basic type to user defined type, User defined to basic type and one user defined conversion to another user defined type. |
| Week 13 | 30-03-2020 to 04-04-2020 | Inheritance: Extending Classes Concept of inheritance, Base class, Defining derived classes, Visibility modes : Public, Private, Protected ;Types of Inheritance: Single inheritance : Privately derived, Publicly derived; |
| Week 14 | 07-04-2020 to 11-04-2020 | Making a protected member inheritable, multilevel inheritance, multiple Inheritance and ambiguity of multiple inheritance, Hierarchal Inheritance, Hybrid, Nesting of classes. : |
| Week 15 | 15-04-2020 to 18-04-2020 | Polymorphism: Definition, Application and demonstration of Data Abstraction, Encapsulation and Polymorphism. |
| Week 16 | 20-04-2020 to 24-04-2020 | Early Binding, Polymorphism with pointers, Virtual Functions, Late binding, pure virtual functions. |
| Week 17 | 27-04-2020 to 02-05-2020 | Exception Handling: Definition, Exception Handling Mechanism : Throwing mechanism and Catching Mechanism, Rethrowing an Exception |
| Week 18 | 04-05-2020 | File Processing : Opening and closing of file, Binary file operations, structures and file operations, classes and file operations, Random file processing and Revision of all Syllabus. |

**Post Graduate Govt. College for Girls, Sector-42, Chandigarh**

**Teaching Plan (Even Semester) Session (2019-2020)**

**Class: BCA 6TH Sem**   **Name of the Teacher:Sudhir Kumar Sharma**

**Subject: E-Commerce Period:4 &6**

**Paper: BCA-16-601 Room No:202**

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| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 09-01-2020 to 11-01-2020 | An Overview of E-Commerce and its related terms. |
| Week 2 | 13-01-2020 to 18-01-2020 | Definitions: E-commerce, E-business, difference between E-commerce and E-business, Problems with Traditional business systems, |
| Week 3 | 20-01-2020 to 25-01-2020 | Aims of E-commerce, Types of E-commerce: B2B, B2C, C2C, B2G, G2H, G2C, Operational & Strategic benefits of E-commerce, Issues & Challenges in E-commerce. |
| Week 4 | 27-01-2020 to 01-02-2020 | Electronic Data Interchange (EDI): Definition; Traditional versus EDI enabled system for document exchange; Components of EDI: EDI Standards, EDI Software, Communication Networks; |
| Week 5 | 03-02-2020 to 08-02-2020 | EDI Message Structure; EDI Notification Structure; EDI in India; EDI enabled procurement process; Benefits of EDI: Direct Benefits, Strategic Benefits; EDI Implementation issues; Legal Aspects |
| Week 6 | 10-02-2020 to 15-02-2020 | Web based E-Commerce: Definition; Need for web based business, Steps in setting up business on Internet: |
| Week 7 | 17-02-2020 to 22-02-2020 | Selection & registration of domain name, Website development : Planning a website, Steps for creating a website, |
| Week 8 | 24-02-2020 to 29-02-2020 | Elements of a webpage, web authoring tools,Hosting a website: Website hosting considerations. |
| Week 9 | 02-03-2020 to 05-03-2020 | Online Promotion tools & techniques: Getting links to your site, banner advertisements & measuring advertisement effectiveness; |
| Mid Semester Exams (06-03-2020 to 13-03-2020) | | |
| Week 11 | 14-03-2020, 16-03-2020 to 21-03-2020 | Web Traffic Analysis: Hits, View pages, Visits and Other web-reporting tools, various measures, What is Search Engine optimization |
| Week 12 | 24-03-2020 to 28-03-2020 | Electronic Payment Systems: E-cash: Purchasing & using of e-cash; |
| Week 13 | 30-03-2020 to 04-04-2020 | Electronic Purses their loading with cash and use; E-cheque payment system; |
| Week 14 | 07-04-2020 to 11-04-2020 | Online Third Party Verified Payment System through Credit & Debit Cards; ATM based cash disbursement system; |
| Week 15 | 15-04-2020 to 18-04-2020 | Electronic Bill Payment System; Inter bank clearing system. |
| Week 16 | 20-04-2020 to 24-04-2020 | **MobileCommerce:** Definition, Benefits of Mobile Commerce, Issues in Mobile Commerce, Mobile Commerce Framework. |
| Week 17 | 27-04-2020 to 02-05-2020 | Applications of E-Commerce & Case Studies: Applications of e-commerce, Case studies in Retailing, Banking and e-governance; |
| Week 18 | 04-05-2020 | Cyber Crimes: Types, Cyber Forensics, Cyber crimes and IT Act - 2000. |

**Post Graduate Govt. College for Girls, Sector-42, Chandigarh**

**Teaching Plan (Even Semester) Session (2019-2020)**

**Class: M.Sc (IT) 2ND Sem**   **Name of the Teacher: Sudhir Kumar Sharma**

**Subject: E-Commerce & Emerging Trends Period: 2, 4**

**Paper: MS 65 Room No: lab 3**

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| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 09-01-2020 to 11-01-2020 | An Overview of E-Commerce. Electronic Commerce: Traditional Commerce vs Electronic Commerce, Types of E-Commerce, |
| Week 2 | 13-01-2020 to 18-01-2020 | E-Commerce infrastructure: Hardware and Software requirements, Electronic Data Interchange (EDI): |
| Week 3 | 20-01-2020 to 25-01-2020 | EDI enabled procurement process and its benefits; Components of EDI system: EDI standards, EDI software, communication networks |
| Week 4 | 27-01-2020 to 01-02-2020 | Electronic Payment Methods: Types of Electronic Payment Systems, Digital Token Based Electronic Payment Systems, Smart cards and Electronic payment Systems, Credit Card-Based Electronic Payment Systems, Risk and Electronic payment Systems. |
| Week 5 | 03-02-2020 to 08-02-2020 | Issues in E-commerce: The legal and policy environment of E-Commerce; Intellectual Property, advertising and consumer protection; Copyright Law; Patent Law; Network Security and Firewalls; Client-Server Network Security Threats; Data and Message Security; Encrypted Documents and E-mail; Digital Signatures. |
| Week 6 | 10-02-2020 to 15-02-2020 | Business Intelligence: Introduction to Business Intelligence, Digital data and its types – structured, semi-structured and unstructured, Introduction to Online Transaction Processing (OLTP), |
| Week 7 | 17-02-2020 to 22-02-2020 | Online Analytical Processing (OLAP), Different OLAP architectures: MOLAP, ROLAP, HOLAP, Comparison of OLTP and OLAP. BI Definitions and need, BI Component Framework, Business Applications of BI. |
| Week 8 | 24-02-2020 to 29-02-2020 | Case Studies: Supply Chain management, Banking, Online Reservation Systems, Online Publishing |
| Week 9 | 02-03-2020 to 05-03-2020 | Parallel Computing: Introduction and use, Flynn's Classical Taxonomy: SISD, SIMD, MISD, MIMD; Parallel Computer Memory Architectures: Shared Memory, Distributed Memory, Hybrid Distributed-Shared Memory; |
| Mid Semester Exams (06-03-2020 to 13-03-2020) | | |
| Week 11 | 14-03-2020, 16-03-2020 to 21-03-2020 | Parallel Programming Models: Shared Memory Model, Threads Model, Distributed Memory/Message Passing Model, Data Parallel Model, Hybrid Model, SPMD and MPMP, |
| Week 12 | 24-03-2020 to 28-03-2020 | Introduction to Parallel Virtual Machine and Message Passing Interface, Supercomputers. |
| Week 13 | 30-03-2020 to 04-04-2020 | Cloud Computing: Introduction and use, Architecture, Service Models: infrastructure as a service, platform as a service, and software as a service; |
| Week 14 | 07-04-2020 to 11-04-2020 | Grid computing: Introduction and benefits, virtual organisations, grid Architecture and its relationship to other distributed technologies, grid application areas. |
| Week 15 | 15-04-2020 to 18-04-2020 | Mobile Computing : Definition, Guided Transmission, Unguided Transmission; |
| Week 16 | 20-04-2020 to 24-04-2020 | Mobile computing architecture, Mobile Devices, Mobile System Networks: Cellular., WLAN, Ad hoc networks; |
| Week 17 | 27-04-2020 to 02-05-2020 | Introduction to : GSM,CDMA,GPRS,EDGE; Introduction to Mobile Databases; Mobile Applications; Mobile Application Languages; |
| Week 18 | 04-05-2020 | Features of Mobile Operating system: Palm OS , Symbian, Android and Revision of all Syllabus. |