**PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH**

**Teaching Plan Even Semester**

**Session (2018-19)**

**Class: BCA -2nd Sem Name of the Teacher:**

**Subject: Object Oriented Programming using C++ Period :**

**Paper : BCA -16-204 Room No : 101**

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| **S. No** | **Dates** | **Topics to be covered** |
| Week 1 | 14 /01/2019 – 19/01/2019 | Introduction to C and C++ |
| Week 2 | 21/01/2019 –  25/01/2019 | Principles of Object Oriented Programming (OOP): Introduction to OOP, Difference between OOP and Procedure Oriented Programming |
| Week 3 | 28/01/2019 –  2/02/2019 | Concepts: Object, Class, Encapsulation, Abstraction, Polymorphism and Inheritance, Applications of OOP |
| Week 4 | 4/02/2019 –  9/02/2019 | Special operators: scope resolution operator, Member Dereferencing operators, Memory management operators, Manipulators and Type cast operator |
| Week 5 | 11/02/2019 –  16/02/2019 | Structure of a C++ Program and Classes and Objects : Class Declaration : Data Members, Member Functions, Private and Public members |
| Week 6 | 18/02/2019 –  23/02/2019 | Creating Objects, Accessing class data members, Accessing member functions; Class Function Definition |
| Week 7 | 25/02/2019 –  02/03/2019 | Member Function definition inside the class declaration and outside the class declaration |
| Mid Semester Exam | | |
| Week 8 | 11/03/2019 –  16/03/2019 | Friend function, inline function, Static members |
| Week 9 | 18 /03/2019 –  22/03/2019 | Function Overloading, Arrays within a class. Arrays of Objects; Objects as function arguments, Pass by value, Pass by reference, Pointers to Objects |
| Week 10 | 25/03/2019 –  30/03/2019 | Constructors: Declaration and Definition, Types of Constructors, (Default, Parameterized, Copy Constructors). Destructors: Definition and use |
| Week 11 | 1/04/2019 –  6/04/2019 | 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 12 | 8/04/2019 –  12/04/2019 | 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; Making a protected member inheritable, multilevel inheritance |
| Week 13 | 15/04/2019 –  20/04/2019 | Multiple Inheritance and ambiguity of multiple inheritance, Hierarchal Inheritance, Hybrid, Nesting of classes. Polymorphism: Definition, Application and demonstration of Data Abstraction, Encapsulation and Polymorphism. Early Binding |
| Week 14 | 22/04/2019 –  27/04/2019 | Polymorphism with pointers, Virtual Functions, Late binding, pure virtual functions. Exception Handling: Definition, Exception Handling Mechanism : Throwing mechanism and Catching Mechanism, Rethrowing an Exception |
| Week 15 | 29 /04/2019 –  3/05/2019 | File Processing : Opening and closing of file, Binary file operations, structures and file operations, classes and file operations, Random file processing  Revision of All Syllabus |

**PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH**

**Teaching Plan Even Semester**

**Session (2018-19)**

**Class: BCA 4TH Sem Name of the Teacher: Sudhir Kumar Sharma**

**Subject: Software Project Management Period :**

**Paper : BCA-16-403 Room No : 201**

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| **S. No** | **Dates** | **Topics to be covered** |
| Week 1 | 14 /01/2019 – 19/01/2019 | Software Project Management and Process Groups: Introduction to project and project management, role of a project manager in project management, a system view of project management |
| Week 2 | 21/01/2019 –  25/01/2019 | Stakeholders of Project, Project phases and product life cycles, Evolution of software economics, Improving software economics |
| Week 3 | 28/01/2019 –  2/02/2019 | Reducing product size, software processes, team effectiveness, automation through software environments, Principles of modern software management. |
| Week 4 | 4/02/2019 –  9/02/2019 | Project Management Framework: Project Management Framework, Software Tools for Project Management |
| Week 5 | 11/02/2019 –  16/02/2019 | Issues in Project Staff Acquisition and Team formation and Development, Model based software architectures, Workflows of the process, Checkpoints of the process |
| Week 6 | 18/02/2019 –  23/02/2019 | Project Integration: Integration Management: Project selection, project management plans |
| Week 7 | 25/02/2019 –  02/03/2019 | Project execution, project monitoring and controlling, integrated change control |
| Mid Semester Exam | | |
| Week 8 | 11/03/2019 –  16/03/2019 | Scope Management: Scope Management: project scope statement, Work breakdown structures |
| Week 9 | 18 /03/2019 –  22/03/2019 | Scope verification and scope control, Process instrumentation and seven core metrics |
| Week 10 | 25/03/2019 –  30/03/2019 | Software management disciplines: Iterative process planning, Project organizations and responsibilities, Process automation |
| Week 11 | 1/04/2019 –  6/04/2019 | Project Scheduling: Time Management; Importance of Project Schedules |
| Week 12 | 8/04/2019 –  12/04/2019 | Sequencing and Scheduling Activity, Project Network Diagrams |
| Week 13 | 15/04/2019 –  20/04/2019 | PERT/CPM, Gantt charts, Critical chain scheduling |
| Week 14 | 22/04/2019 –  27/04/2019 | Cost Management: Project Cost Management - Importance and Principles of Project Cost Management, Resource Planning |
| Week 15 | 29 /04/2019 –  3/05/2019 | Cost Estimating Techniques and. Expert Judgment, Estimating by Analogy, COCOMO Model, Cost Budgeting and Control |

**PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH**

**Teaching Plan Even Semester**

**Session (2018-19)**

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

**Subject: E-Commerce Period :**

**Paper : BCA-16-601 Room No : 201**

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| **S. No** | **Dates** | **Topics to be covered** |
| Week 1 | 14 /01/2019 – 19/01/2019 | **An Overview of E-Commerce:**  Definitions: E-commerce, E-business, difference between E-commerce and E-business, Problems with Traditional business systems, Aims of E-commerce |
| Week 2 | 21/01/2019 –  25/01/2019 | Types of E-commerce: B2B, B2C, C2C, B2G, G2H, G2C, Operational & Strategic benefits of E-commerce, Issues & Challenges in E-commerce |
| Week 3 | 28/01/2019 –  2/02/2019 | Electronic Data Interchange (EDI): Definition; Traditional versus EDI enabled system for document exchange; Components of EDI: EDI Standards, EDI Software, Communication Networks; EDI Message Structure |
| Week 4 | 4/02/2019 –  9/02/2019 | EDI Notification Structure; EDI in India; EDI enabled procurement process; Benefits of EDI: Direct Benefits, Strategic Benefits; EDI Implementation issues; Legal Aspects |
| Week 5 | 11/02/2019 –  16/02/2019 | Web based E-Commerce: Definition; Need for web based business, Steps in setting up business on Internet: Selection & registration of domain name |
| Week 6 | 18/02/2019 –  23/02/2019 | Website development : Planning a website, Steps for creating a website, Elements of a webpage, web authoring tools,Hosting a website: Website hosting considerations |
| Week 7 | 25/02/2019 –  02/03/2019 | Online Promotion tools & techniques: Getting links to your site, banner advertisements & measuring advertisement effectiveness; Web Traffic Analysis |
| Mid Semester Exam | | |
| Week 8 | 11/03/2019 –  16/03/2019 | Electronic Payment Systems: E-cash: Purchasing & using of e-cash; |
| Week 9 | 18 /03/2019 –  22/03/2019 | Electronic Purses their loading with cash and use; E-cheque payment system |
| Week 10 | 25/03/2019 –  30/03/2019 | Online Third Party Verified Payment System through Credit & Debit Cards; |
| Week 11 | 1/04/2019 –  6/04/2019 | ATM based cash disbursement system; Electronic Bill Payment System; Inter bank clearing system |
| Week 12 | 8/04/2019 –  12/04/2019 | Mobile Commerce: Definition, Benefits of Mobile Commerce |
| Week 13 | 15/04/2019 –  20/04/2019 | Issues in Mobile Commerce, Mobile Commerce Framework |
| Week 14 | 22/04/2019 –  27/04/2019 | **Applications of E-Commerce & Case Studies**: Applications of e-commerce, Case studies in Retailing, Banking and e-governance |
| Week 15 | 29 /04/2019 –  3/05/2019 | Cyber Crimes: Types, Cyber Forensics, Cyber crimes and IT Act - 2000 |

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**Teaching Plan Even Semester**

**Session (2018-19)**

**Class: Name of the Teacher: Sudhir Kumar Sharma**

**Subject: E-Commerce and Emerging Trends Period :**

**Paper : MS-65 Room No : 101**

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| **S. No** | **Dates** | **Topics to be covered** |
| Week 1 | 14 /01/2019 – 19/01/2019 | **Electronic Commerce:** Traditional Commerce vs Electronic Commerce, Types of E-Commerce, E-Commerce infrastructure: Hardware and Software requirements, **Electronic Data Interchange (EDI):** |
| Week 2 | 21/01/2019 –  25/01/2019 | EDI enabled procurement process and its benefits; Components of EDI system: EDI standards, EDI software, communication networks; Electronic Payment Methods: Types of Electronic Payment Systems |
| Week 3 | 28/01/2019 –  2/02/2019 | Digital Token Based Electronic Payment Systems, Smart cards and Electronic payment Systems, Credit Card-Based Electronic Payment Systems, Risk and Electronic payment Systems |
| Week 4 | 4/02/2019 –  9/02/2019 | Issues in E-commerce: The legal and policy environment of E-Commerce; Intellectual Property, advertising and consumer protection |
| Week 5 | 11/02/2019 –  16/02/2019 | Copyright Law; Patent Law; Network Security and Firewalls; Client-Server Network Security Threats |
| Week 6 | 18/02/2019 –  23/02/2019 | Data and Message Security; Encrypted Documents and E-mail; Digital Signatures |
| Week 7 | 25/02/2019 –  02/03/2019 | Business Intelligence: Introduction to Business Intelligence, Digital data and its types – structured, semi-structured and unstructured, Introduction to Online Transaction Processing (OLTP) |
| Mid Semester Exam | | |
| Week 8 | 11/03/2019 –  16/03/2019 | Online Analytical Processing (OLAP), Different OLAP architectures: MOLAP, ROLAP, HOLAP, Comparison of OLTP and OLAP |
| Week 9 | 18 /03/2019 –  22/03/2019 | BI Definitions and need, BI Component Framework, Business Applications of BI, Case Studies: Supply Chain management, Banking, Online Reservation Systems, Online Publishing |
| Week 10 | 25/03/2019 –  30/03/2019 | 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; Parallel Programming Models |
| Week 11 | 1/04/2019 –  6/04/2019 | Shared Memory Model, Threads Model, Distributed Memory/Message Passing Model, Data Parallel Model, Hybrid Model, SPMD and MPMP, Introduction to Parallel Virtual Machine and Message Passing Interface, Supercomputers. |
| Week 12 | 8/04/2019 –  12/04/2019 | Cloud Computing: Introduction and use, Architecture, Service Models: infrastructure as a service, platform as a service, and software as a service |
| Week 13 | 15/04/2019 –  20/04/2019 | Grid computing: Introduction and benefits, virtual organisations, grid Architecture and its relationship to other distributed technologies, grid application area |
| Week 14 | 22/04/2019 –  27/04/2019 | Definition, Guided Transmission, Unguided Transmission; Mobile computing architecture, Mobile Devices, Mobile System Networks: Cellular, WLAN, Ad hoc networks; Introduction to |
| Week 15 | 29 /04/2019 –  3/05/2019 | Introduction to : GSM,CDMA,GPRS,EDGE; Introduction to Mobile Databases; Mobile Applications; Mobile Application Languages; features of Mobile Operating system: Palm OS , Symbian, Android |