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

**Teaching Plan (OddSemester) Session (2019-2020)**

**Class:** BSc.CSE (3rd Semester)  **Name of the Teacher:** Sonika

**Subject:** Object Oriented Programming (using C++) and Computer Organization **Paper:** CS06and CS05

|  |  |  |
| --- | --- | --- |
| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 23-07-2019 to 27-07-2019 | Number system: Binary, Decimal, Hexadecimal, Octal;  Conversions; integer and floating point representation, character codes (ASCII, EBCDIC), error detection and correction codes: Parity bit method, Hamming code; Boolean algebra. |
| Week 2 | 29-07-2019 to 03-08-2019 | Combinatorial logic design : Gates, Half Adder, Full Adder, Encoder, Decoder, Multiplexer |
| Week 3 | 05-08-2019 to 10-08-2019 | Object, Class, Encapsulation, Data Hiding, Inheritance, Polymorphism. Analysis and design of system using Object Oriented Approach, Benefit of OOPs. Structure of a C++ Program : Include files, Declaration of class, Main function, I/O streams. Classes : Class Declaration : Data Members, Member Functions, Private and Public members,  .Functions in C++ : Member function definition inside the class declaration and outside the class declaration,  scope resolution operator, Private and Public member function |
| Week 4 | 13-08-2019 to 17-08-2019 | Data hiding and encapsulation, arrays within a class.  Objects : Creating Objects, Accessing class data members, Accessing member functions, |
| Week 5 | 19-08-2019 to 24-08-2019 | Methods of passing arguments to functions. |
| Week 6 | 26-08-2019 to 31-08-2019 | Arrays of Objects, Objects as function arguments: Pass by value, Pass by Reference |
| Week 7 | 02-09-2019 to 07-09-2019 | Constructors: Declaration and Definition, Default Constructors, Parameterized Constructors, Copy Constructors. Destructors: Definition and use. |
| Week 8 | 09-09-2019to 14-09-2019 | Sequential Building Block : Flip-Flops, Registers, Counters |
| Week 9 | 16-09-2019 to 21-09-2019 | Synchronous and Asynchronous Counters, Bus. |
| Week 10 | 23-09-2019 to28-09-2019  (Youth Festival 24-09-2019 to 27-09-2019) | Register Transfer, Arithmetic, Logical and Shift Operations; Instruction :Instruction Format, Instruction cycle |
| Week 11 | 30-09-2019 to 05-10-2019 | Pointers to Objects, Nesting of member functions, Static and  Friend functions. |
| Mid Semester Exams | | |  | Interrrupt: Interrupt types, Interrupt Cycle. |
| Week 12 | 16-10-2019 to 19-10-2019 | Concept of inheritance, base class, derived class,  defining derived classes, visibility modes, private, public. |
| Week 13 | 21-10-2019 to 26-10-2019 | single inheritance : privately derived, publicly derived  making a protected member inheritable, |
| Week 14 | 29-10-2019 to 02-11-2019 | Architecture of 8086/8088 Processor Model; Instruction Set; Addressing Modes: Registers used in Microprocessor. |
| Week 15 | 04-11-2019 to 09-11-2019 | Features of Assembly Language, Machine Language vs  Assembly Language, Pseudo Instruction; use of Assembly for |
| Week 16 | 11-11-2019 to 16-11-2019 | programs: Addition, Subtraction, Multiplication using Subroutines and Basic Input/Output. |
| Week 17 | 18-11-2019 to 23-11-2019 | Multilevel inheritance, nesting of classes. |
| Week 18 | 25-11-2019 to 30-11-2019 | Definition, types, Function overloading, Operator Overloading, Virtual functions and pure virtual functions. |