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

**Teaching Plan Session Even Semester**

**(2017-18)**

**Class: BSc IIndSem Name of the Teacher: Ramninder Kaur**

**Subject: Computer Science (E) Period : IV**

**Paper : Theory A&B Room No : 316**

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| **S. No** | **Date From** | **Date Upto** | **Topics to be covered** |
| Week 1 | Jan 08, 2018 | Jan 13, 2018 | Operating Systems (OS): Introduction, need of operating system and functions of operating system. |
| Week 2 | Jan 15, 2018 | Jan 20, 2018 | Types of OS: Multi-user, Multitasking, Multiprocessing and Real time Operating Systems, Parallel systems,Distributed systems, Structure of Operating System |
| Week 3 | Jan 22, 2018 | Jan 27, 2018 | Process Management: Introduction to Process, PCB, Process States, CPU Scheduling: Scheduling Criteria andAlgorithms: FCFS, SJF, Priority, Round Robin, Multilevel Queue Scheduling, Multilevel Feedback Queue  Scheduling. |
| Week 4 | Jan 29, 2018 | Feb 3, 2018 | ProgrammingProcess**:** Steps in developing of a program, Data Flow Diagram, Decision Table, Algorithmdevelopment, Flowchart, Pseudo Code, Testing and Debugging. |
| Week 5 | Feb 5, 2018 | Feb 10, 2018 | FundamentalsofCLanguages**:** History of C, Character Set and Keywords, Constants, Types of CConstants, Rules for Constructing Integer, Real and character Constants, Variables, Data Types, rules forconstructing variables. |
| Week 6 | Feb 12, 2018 | Feb 17, 2018 | OperatorsandExpressions**:** C Instructions, Arithmetic operators, Relational operators, Logical operators,Assignment Operators, Type Conversion in Assignments, Hierarchy of Operations. |
| Week 7 | Feb 19, 2018 | Feb 24, 2018 | Standard and FormattedStatements, Structure of a C program, Compilation and Execution. |
| Week 8 | Feb 26, 2018 | Mar 03 , 2018 | Decision Control Structure: Decision making with IF-statement, IF-Else and Nested IF-Else, The else ifClause. |
| **2nd week March (Mid Semester Exam)** | | | |
| Week 9 | March 15, 2018 | March 17, 2018 | Loop Control Structure: While and do-while, for loop and Nested for loop.  Case Control Structure: Decision using switch, The goto statement. |
| Week 10 | March 19 , 2018 | March 24, 2018 | Practice of programming examples in C  Functions**:** Library functions and user defined functions. |
| Week 11 | March 26, 2018 | March 31, 2018 | Global and Local variables, Function Declaration,Calling and definition of function, Methods of parameter passing to functions, recursion, Storage Classes in C. |
| Week 12 | April 02, 2018 | April 07, 2018 | Arrays**:** Introduction, Array declaration, Accessing values in an array, Initializing values in an array, Singleand Two Dimensional Arrays, Initializing a 2-Dimensional Array, Memory Map of a 2-Dimensional Array,Passing array elements to a function. |
| Week 13 | April 09, 2018 | April 14 , 2018 | Deadlocks: Introduction, Necessary and sufficient conditions for Deadlocks, Resource allocation graph. Introduction to methods for handling deadlocks, deadlock prevention, deadlock avoidance: Banker Algorithm,deadlock detection and recovery. |
| Week 14 | April 16, 2018 | April 21, 2018 | Memory Management: Logical vs Physical address space, Swapping, Introduction to Paging, Segmentation,Virtual Memory-Demand paging, Introduction to Page Replacement algorithms: FIFO, Optimal Pagereplacement and LRU |
| Week 15 | April 23, 2018 | April 28, 2018 | String Manipulation in C: Declaring and Initializing string variables, Reading and writing strings, String  Handlingfunctions(strlen(), strcpy(), strcmp(), strcat()). |
| Week 16 | April 30, 2018 | May 05, 2018 | Structuresand Unions:Declaration of structures, Structure Initialization, Accessing structure members,  Union, Difference between Structure and Union. Revision of covered topics |