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

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

**Class: BSc CSc 2nd Sem**   **Name of theTeacher: Sonika**

**Subject: operating system concepts/C Period:**

**Paper: Room No:**

|  |  |  |
| --- | --- | --- |
| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 09-01-2020 to 11-01-2020 | Operating Systems (OS): Introduction, need of operating system and functions of operating system |
| Week 2 | 13-01-2020 to 18-01-2020 | Types of OS: Multi-user, Multitasking, Multiprocessing an  d Real time Operating Systems, Parallel systems,  Distributed systems; Structure of Operating System; |
| Week 3 | 20-01-2020 to 25-01-2020 | Process Management: Introduction to Process, PCB, Process States, CPU Scheduling: Scheduling Criteria |
| Week 4 | 27-01-2020 to 01-02-2020 | Algorithms: FCFS, SJF, Priority, Round Robin, Multi  level Queue Scheduling, Multilevel Feedback Queue  Scheduling. |
| Week 5 | 03-02-2020 to 08-02-2020 | Deadlocks: Introduction, Necessary and sufficient conditions for Deadlocks, Resource allocation graph,  . |
| Week 6 | 10-02-2020 to 15-02-2020 | Introduction to methods for handling deadlocks, deadlock prevention, |
| Week 7 | 17-02-2020 to 22-02-2020 | deadlock avoidance: Banker Algorithm, deadlock detection and recovery |
| Week 8 | 24-02-2020 to 29-02-2020 | Memory Management: Logical vs Physical address space, Swapping, Introduction to Paging, Segmentation, |
| Week 9 | 02-03-2020 to 05-03-2020 | Virtual Memory-Demand paging, Introduction to Page  Replacement algorithms: FIFO, Optimal Page  replacement and LRU |
| **Mid Semester Exams (06-03-2020 to 13-03-2020)** | | |
| Week 11 | 14-03-2020, 16-03-2020 to 21-03-2020 | Steps in developing of a program, Data Flow Diagram, Decision Table, Algorithm development, Flowchart, Pseudo Code, Testing and Debugging. History of C, Character Set, Identifiers and Keywords, Constants, Types of C Constants, Rules for Constructing Integer, Real and character Constants, Variables, Data Types, rules for constructing variables. |
| Week 12 | 24-03-2020 to 28-03-2020 | C Instructions, Arithmetic operators, Relational operators, Logical operators, Assignment Operators, Type Conversion in Assignments, Hierarchy of Operations, Standard and Formatted functions |
| Week 13 | 30-03-2020 to 04-04-2020 | Decision making with IF-statement, IF-Else and Nested IF-Else, The else if Clause. Loop Control Structure: While and do-while, for loop and Nested for loop, Case Control Structure: Decision using switch, The goto statement. |
| Week 14 | 07-04-2020 to 11-04-2020 | Library functions and user defined functions, Global and Local variables, Function Declaration, Calling and definition of function |
| Week 15 | 15-04-2020 to 18-04-2020 | Methods of parameter passing to functions, recursion, Storage Classes in C. |
| Week 16 | 20-04-2020 to 24-04-2020 | Declaring and Initializing string variables, Reading and writing strings, String Handlingfunctions(strlen(), strcpy(), strcmp(), strcat()). |
| Week 17 | 27-04-2020 to 02-05-2020 | Declaration of structures, Structure Initialization, Accessing structure members, |
| Week 18 | 04-05-2020 | Union, Difference between Structure and Union . |