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

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

**Class:** BCA II (Sem IV)  **Name of the Teacher:** Ms. Anu Chawla

**Subject:** Operating System Concepts and Linux **Period : 1st** (Mon- Sat)

**Paper :** BCA-16-404 **Room No :** 101

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| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 09-01-2020 to 11-01-2020 | Operating Systems (OS): Introduction, its needs and services, |
| Week 2 | 13-01-2020 to 18-01-2020 | creating files and directories, listing files (ls), pwd, moving and copying files (mv, cp), moving directories, Removing files and directories, using wildcards with files and directories, |
| Week 3 | 20-01-2020 to 25-01-2020 | Types of OS: Multi-user, Multitasking, Multiprocessing and Real time Operating Systems, Parallel systems, Distributed system Process Management: Introduction to Process, PCB, Process States, |
| Week 4 | 27-01-2020 to 01-02-2020 | CPU Scheduling: Scheduling Criteria and Algorithms: FCFS, SJF, Priority, Round Robin, Multilevel Queue Scheduling, Multilevel Feedback Queue Scheduling |
| Week 5 | 03-02-2020 to 08-02-2020 | History, Minimum system requirements, Boot and Root disks Starting and stopping Linux system, passwords logging in and out, terminal Handling commands: who, Understanding wildcards, Environment variables Understanding I/O Redirection and Piping: |
| Week 6 | 10-02-2020 to 15-02-2020 | Introduction, cut, paste, sort, tee; Introduction to Regular Expressions and grep . Using file system: Introduction to common types of files, Filenames, Introduction to different types of directories: Parent, Subdirectory, Home directory; rules to name a directory, Important directories in Linux File System, Absolute and relative filenames, |
| Week 7 | 17-02-2020 to 22-02-2020 | File and directory permissions using relative and absolute methods, Changing group ownership, umask settings |
| Week 8 | 24-02-2020 to 29-02-2020 | Process Management: Types of processes, ps, bg, fg, nice, kill. Understanding System Administration activities: Superuser (su) command, |
| Week 9 | 02-03-2020 to 05-03-2020 | Taking backups using tar, Managing disk space, Mounting and Un-mounting file system, Managing users, |
| Mid Semester Exams (06-03-2020 to 13-03-2020) | | |
| Week 11 | 14-03-2020, 16-03-2020 to 21-03-2020 | Deadlocks: Necessary and sufficient conditions for Deadlocks, Introduction to methods for handling deadlocks deadlock detection and recovery |
| Week 12 | 24-03-2020 to 28-03-2020 | Memory Management: Logical vs Physical address space, Swapping, |
| Week 13 | 30-03-2020 to 04-04-2020 | Introduction to Paging, Segmentation, Virtual Memory-Demand paging |
| Week 14 | 07-04-2020 to 11-04-2020 | Introduction to Page Replacement algorithms: FIFO, Optimal Page replacement and LRU |
| Week 15 | 15-04-2020 to 18-04-2020 | Managing printers with lpd, mknod, lpc, lpq, lprm |
| Week 16 | 20-04-2020 to 24-04-2020 | Vi editor: starting vi, vi modes, inserting text, quitting vi, deleting text, copying and moving text, searching and replacing text. |
| Week 17 | 27-04-2020 to 02-05-2020 | Revision |
| Week 18 | 04-05-2020 | Revision |