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

**Teaching Plan Session Odd Semester**

**(2018-19)**

**Class: M.Sc.(IT) Ist Sem Name of the Teacher: Anu Chawla**

**Subject: Linux System Administration Period : Mon Tues(2nd), wed-Thur(3rd)**

**and Programming**

**Paper : MS - 66 Room No : 202,205**

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| **S. No** | **Date From** | | **Date Upto** | **Topics to be covered** |
| Week 1 | **(For ongoing classes)** | | | ----- |
| July 24, 2018 | | July 28, 2018 |
| Week 2 | July 30, 2018 | August 4, 2018 | | Functions of an operating system, Linux's History, different flavors of Linux, Minimum System Requirements for installing Linux |
| Week 3 | August 6, 2018 | August 11, 2018 | | Using Linux: Starting and Stopping your Linux System, Linux Shutdown Commands,  Login, Passwords; |
| Week 4 | August 13, 2018 | August 18, 2018 | | Linux Error Messages, Search Paths, Input and Output Redirection,Man pages, Wildcards: \* and ?, Environment Variables, process Commands: ps, kill, su command; |
| Week 5 | August 20, 2018 | August 25, 2018 | | GREP pattern searching command, vi text-editor |
| Week 6 | August 27, 2018 | September 1, 2018 | | Using the File System : Files Overview, Common types of files, file and directory management commands |
| Week 7 | September 3, 2018 | September 8, 2018 | | Absolute and relative filenames; pwd, cd,rm, cat, mkdir, mv, cp;,  Important directories in the Linux file System: / , /home, /bin, /usr, /usr/bin, /usr/spool, /dev, /usr/bin, /sbin, /etc.File and Directory Permissions : File and Directory ownership |
| Week 8 | September 10, 2018 | September 15, 2018 | | *User and ownership,Groups, Changing group ownership, File Permissions, UMASK Setting,*  *Changing File Permission, Changing directory permissions; Bourne Again Shell (BASH): Command-line Completion, Wildcards, Command History, Aliases, Pipelines, setting shell prompts, Job control, Customizing bash,bash variables.* |
| Week 9 | September 17, 2018 | September 22, 2018 | | *Shell Programming: Creating and Running Shell Programs, Using variables, Positional Parameters and other built-in Shell Variables; importance of quotation marks, test Command,* |
| Week 10 | September 24, 2018 | September 29, 2018 | | *Conditional Statements: if Statement, case Statement; Iteration Statements: for statement, while Statement, until Statement* |
| Week 11 | October 1, 2018 | October 8, 2018 | | *shift Command, select Statement, repeat Statement, Functions.* |
| **MID SEMESTER EXAMINATION (October 11, 2018 to October 17, 2018)** | | | | |
| Week 12 | October 20, 2018 | October 27, 2018 | | Linux for System Administrators:  System Administration Basics, The root Account, Starting and Stopping the System; Mounting File Systems: Mounting a Device, Creating a New file System, Un-mounting file Systems, Checking file Systems, Compressing files with gzip and compress: Using tar |
| Week 13 | October 29, 2018 | November 3, 2018 | | Backups, Setting the Login Message,Setting of DNS, Ping, WWW, and e-mail. |
| Week 14 | November 5, 2018 | November 10, 2018 | | PERL: Creating and Executing Perl Programs, Handling Data in Perl: Variables,Numbers, Strings, File Operators: Arrays, Perl Programming Constructs: Statement Blocks, If Statements, unless Statements, for Statements |
| Week 15 | November 12, 2018 | November 17, 2018 | | for each Statements, while Statements, until Statements, Functions: Passing Arguments to Functions, Using Return Values; Perl Operators. |
| Week 16 | November 19, 2018 | November 22, 2018 | | System Calls: C as System Programming Language, I/O system calls – umask(); create();  open(); read(); write(); lseek(); dup(); link(); access(); chmod(); chown(); Process management system calls; fork(); getpid(); getppid(); exit() ; wait(); sleep() ; Signal system calls – kill(); signal() |
| Week 17 | November 26, 2018 | December 1, 2018 | | Revision & test |