



PC OPERATING SYSTEMS
(GE Inter-Disciplinary)

Credits : 2
Subject Code : G20CS1T

Semester: III
No. of Lecture Hours: 30

Objectives:

- Install, configure, and maintain the Windows and Ubuntu operating system
- To perform basic file management operations
- To work with Virtual Box

Outcome: An introduction to personal computer operating systems including installation, configuration, file management, memory and storage management, control of peripheral devices, and use of utilities

UNIT- I	6 Hrs
1. Introduce Windows 10,	1
2. Use Backup and Recovery Tools and Discover Windows Apps	1
3. Advanced File Management and Advanced Searching,	2
4. Introduction of Viruses and Spyware, Windows Defender, Discuss Protecting a Computer by Using Windows Firewall, Discuss Windows Update and Privacy Settings	
2	
UNIT- II	6 Hrs
1. Monitoring and Tracking System Performance	2
2. Create a System Diagnostics Report	1
3. Manage Services by Using the Services Console	1
4. Install Windows 10 , Manage Windows 10 memory and storage	2
UNIT- III	6 Hrs
1. Introduction to Ubuntu, and History	2
2. Flavours of Ubuntu	1
3. System Requirements, Downloading Ubuntu, Installing Ubuntu	2
4. The MenuBar, Task Bar, System Setting	1



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UNIT-IV

6 Hrs

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|--|---|
| 1.Installing Software,Removing Software,Installing Updates | 2 |
| 2.Creating Users,Enabling User Accounts,Managing User Permissions and Groups | 2 |
| 3.Invoking the Command Line,Directory Listing,Command Help | 1 |
| 4.Creating and finding Files,whoami,present Working Directory, | 1 |

UNIT- V

6 Hrs

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|---|---|
| 1. Networking in Ubuntu,Assigning an IP address | 1 |
| 2. Introduction to Virtual Box | 1 |
| 3. Installation of Windows in Virtual Box | 1 |
| 4. Installation of Ubuntu in Virtual Box | 1 |
| 5. Install Ubuntu in Cloud Environment | 2 |

ESSENTIAL READING

1. Gaskin & Vargas, GO! with Microsoft Windows 10 Introductory, Pearson Publication
<https://www.tutorialspoint.com/ubuntu/index.html>



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PC OPERATING SYSTEMS LAB

(GE Inter-Disciplinary)

Credits : 1

Subject Code : G20CS1P

Semester: III

No. of Lecture Hours:30

Objective:

- To learn the basics of Operating Systems, installations of operating systems, and learn the Utilities .

No. of Hours

Topics

1. Installation of Virtual Box
2. Installation of Windows Operating System.
3. Installation of Ubuntu Operating System
4. Exploring Windows Environment
5. Installing and Removing application
6. Creating and Managing Users in Windows
7. Manage Services by Using the Services Console
8. Diagnosis of Windows
9. Networking in Ubuntu
10. Creating and Managing Users in Ubuntu
11. Basic Commands of Ubuntu
12. Install Ubuntu in Cloud Environment



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SHELL PROGRAMMING

(GE Inter-Disciplinary)

Credits : 2

Semester: III

Subject Code : G18CS1T

No. of Lecture Hours: 30

Objectives:

- To provide a comprehensive introduction to Shell Programming.
- To develop fundamental skills required to write simple and complex Shell scripts to automate jobs and processes in the Unix environment.

Outcome: Students will be able to apply UNIX/LINUX operating system commands and implement UNIX/LINUX shell scripts.

UNIT- I

6 Hrs

1. Introduction to UNIX, Salient features, UNIX System Organisation
2. Types of Shells, UNIX file system
3. UNIX Commands- bc, Password, calendar, touch, file

2

2

2

UNIT- II

6 Hrs

1. Disk related commands
2. File related commands, Listing files and directories, viewing files
3. Directory related commands, file permissions

2

2

2

UNIT- III

6 Hrs

1. I/O Redirection and Piping
2. Introduction to Vi editor, Modes of operations

2

1



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3. Commands for positioning cursor in the Window and by line 1

4. Shell Programming: variables- System variables, User defined, key words 1

UNIT-IV 6 Hrs

1. Process in Unix, Scheduling of Processes using at and cron 1

2. Positional parameter, passing command line arguments 1

3. Arithmetic in shell scripts, logical operators, Read, echo 2

4. Taking decisions- if-then-fi, if-then-else-fi, test command 2

UNIT- V 6 Hrs

1. Basics of Unix communication, sending Mail, customizing Mail 1

2. Nested if-else, case structure 1

3. Loop control structure- While, until, for, Nesting of Loops 2

4. Break statement and continue 2

ESSENTIAL READING

1. Kanetkar [Yashavant, P.](#) 2003 **UNIX Shell Programming**. New Delhi: BPB Publications