

DEPARTMENT OF COMPUTER SCIENCE				CLASS: II B.Sc. Computer Science				
Sem	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
IV	Practical4	20U4DMCP4	Linux Lab	2	3	40	60	100

Nature of Course			
Knowledge and skill	✓		Employability oriented
Skill oriented			Entrepreneurship oriented

COURSE OBJECTIVES :

- Course designed to impart the knowledge of LINUX OS and its architecture and
- creating Development skill in the design of shell programming for various applications.

Program list:

1. Write a shell program to implement a four function calculator using case
2. Write a shell program to demonstrate the usage of trap command
3. Write a shell program to demonstrate grep command
4. Write a shell program to demonstrate a) set command b) shift command
5. Write a shell program to check whether a given number is prime
6. Write a shell program to display only the files in the current directory
7. Write a shell program to find the biggest if 3 given numbers
8. Write a shell function to find the factorial of a given number. Call the function from your script.
9. Write a C Program to copy a file using low level file access system calls
10. Write a C program to copy a file using the standard IO Library
11. Write a C Program to demonstrate fork()
12. Write a C Program using signals to implement an alarm clock
13. Write a C Program using pipes to communicate between parent and child processes
14. Use Shared Memory to communicate between two programs
15. Use Message Queues to communicate between two programs.

COURSE OUTCOMES:

On the completion of the course the students will be able to

COs	COURSE OUTCOME	Knowledge Level (basis of Bloom's Taxonomy)
CO-1	Know the algorithms to develop shell program using the LINUX commands and procedure.	Up to K2
CO-2	Develop programs to demonstrate the usage of various set and built-in function commands.	Up to K3
CO-3	Construct the shell program to provide the solution for various applications.	Up to K4
CO-4	Know the concept of shells and its kernel operations by developing various logical algorithms.	Up to K3
CO-5	Develop programs to perform file related operations.	Up to K3

MAPPING OF COs WITH PSOs:

Course Outcomes	PSO 1 (Knowledge Base)	PSO 2 (Problem Analysis & Investigation)	PSO 3 (Communication Skills & Design)	PSO 4 (Individual and Team Work)	PSO 5 (Professionalism Ethics and equity)	PSO 6 (Life Long Learning)
CO-1	3	1	1	2	1	1
CO-2	2	3	2	1	1	1
CO-3	2	3	1	1	1	2
CO-4	3	2	2	1	2	1
CO-5	2	2	2	3	2	1

3- Advanced Application

2- Intermediate

1- Introductory

Course Designer(s):

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