



R20 Regulation *Subject code: 3P7EA*
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
 (Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VII Semester Regular/Supplementary Examinations, December 2024

LINUX PROGRAMMING
(CSE)

Maximum Marks: 70

Date: 10.01.2025

Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks		(10X2M=20 Marks)	CO	Bloom Tx
1	List the usage of man command in UNIX.		1	L1
2	Write an example for break and continue commands in UNIX shell.		1	L2
3	Give an example of reporting errors using strerror() and perror() in UNIX.		2	L2
4	What is Host Information in UNIX systems		2	L2
5	Define a process in UNIX.		3	L1
6	What Is a Pipe? Give an example.		3	L2
7	Define Semaphore.		4	L1
8	List advantages of Message Queue.		4	L2
9	What is a Socket?		5	L1
10	How multiple, simultaneous clients connecting to a server give an example.		5	L2

Part-B

Answer All the following questions.		(5X10M=50Marks)	CO	Bloom Tx
11	A) Discuss the characteristics of UNIX programs and systems. [5M] B) Discuss input output redirection in UNIX with an example. [5M]		1	L2 L2
OR				
12	A) Discuss static Libraries and Shared Libraries in UNIX [5M] B) Explain with an example how pipes are used in UNIX to connect multiple commands. [5M]		1	L2 L2
13	A) Write a c program in Unix to copy contents of one file to another file show compilation and execution of the program. [5M] B) Explain Program Arguments with an example [5M]		2	L1 L2
OR				
14	A) Discuss with an example chmod command in UNIX is used to modify the permissions of files and directories. [5M] B) Explain getting User Information using UID. [5M]		2	L2 L2
15	A) Apply fork and wait system calls to create and control process in UNIX. [5M]		3	L3 L2

	B) Discuss Named Pipes with an example. [5M]		
	OR		
16	A) Draw the Process Structure. Explain it with an example. [5M] B) Discuss the use of popen and pclose functions to create process pipes. [5M]	3	L3 L2
17	A) Explain with a diagram the P and V operations act as a gate into critical sections of code. [5M] B) Discuss message queues in LINUX with an example [5M]	4	L2 L2
	OR		
18	A) Illustrate how shared memory works in IPC. [5M] B) Discuss IPC Status Commands with an example [5M]	4	L3 L2
19	A) Discuss Sockets are characterized by the attribute domain, type, and protocol. [5M] B) Write a program to get information about a host computer [5M]	5	L2 L2
	OR		
20	A) Explain Socket Protocols with an example. [5M] B) Discuss The Internet Domain xinetd/inetd [5M]	5	L2 L2