

Code No: **R194212B**

R19

Set No. 1

IV B.Tech II Semester Regular Examinations, April– 2023

NETWORK PROGRAMMING

(Information Technology)

Time: 3 hours

Max. Marks: 75

*Answer any FIVE Questions
ONE Question from Each unit
All Questions Carry Equal Marks*

UNIT I

- 1 a) Write and explain the syntax of any six file handling utilities in Linux. [7]
b) What is Redirection? Explain the various commands used for redirection. [8]
(OR)
- 2 a) Explain the purpose of Pipe command in Linux and use the same to execute the following.
i) Listing all files and directories and give it as input to more command.
ii) Use sort and uniq commands to sort a file and print unique values. [7]
b) What are Bash shell meta characters? Explain how to use Bash Shell meta characters in Linux. [8]

UNIT II

- 3 a) Explain about file attributes and permissions in Linux. [7]
b) What is the difference between Softlink and Hardlink? Explain with best use case of each. [8]
(OR)
- 4 a) How to check the ownership of files in Linux? Explain the syntax of chown, lchown, fchown system calls. [7]
b) Explain the file locking features and mechanism available in Linux. [8]

UNIT III

- 5 a) What is a Signal in UNIX? List the actions associated with a Signal? List the names of any four Signals along with their default action. [7]
b) What is the advantage of Inter-Process Communication? Explain in brief about various types of IPC mechanisms supported by UNIX operating system. [8]

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- 6 a) Explain about the necessary data structures and System V APIs for implementing IPC using Message Queues. [12]
b) Write about kill, alarm and raise functions. [3]

UNIT IV

- 7 a) What is Shared memory? Explain kernel support for shared memory with example. [7]
b) Write about the Socket address structures involved in Network programming and explain the Socket system call. [8]

(OR)

- 8 Explain the following
i) setsockopt
ii) getsockopt
iii) fcntl [15]

UNIT V

- 9 a) Describe the JAVA's language level support for implementing TCP and UDP sockets. [8]
b) Explain about RMI in JAVA with an example. [7]

(OR)

- 10 Write a C program for TCP Client-Server implementation. [15]

