Regulation R20 *Subject code:3P3FB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech III Semester Supplementary Examinations, July 2022

LINUX PROGRAMMING

(INFORMATION TECHNOLOGY)

Maximum Marks: 70 Date:27.07.2022 Duration: 3 hours

Part-A

Answer all the following questions (10x2M=20 Marks)

1 State 'rlogin' command with example.
2 Write the significance of single quote and double quote.
3 Define stat () function with example.
4 Define about link
5 List the process attributes.
6 Write about process?
7 Define about IPC
8 What is message Queues?
9 What is shared memory?
10 Differentiate stream sockets and raw sockets.

Part-B

Answer Any 5 questions. (5X10M=50Marks)

11 a) Explain ftp and its importance in Linux
b) Write a shell script which checks whether a given file contains a given word. If it does, the script should output the message "The file contains the word"; if not, it should output the message "The file doesn't contain the word". [5+5]

OR

12 a) Define grep. Write a grep command to display the lines which does not matches all the given pattern.
b) Describe about I/O Redirection operations and built in variables in Shell. [5+5]

13 a) Differentiate soft link and hard link with examples.
b) Describe usage of dup(), dup2() system calls with example. [5+5]

OR

14 a) Explain the kernel support for file system.
b) Explain about symlink ( ) function with example program. [5+5]

15 a) Differentiate between fork( ) and vfork( ).
b) Explain clearly the Signal concept with a suitable example. [4+6]

OR

16 Explain the following system call with syntax [10]
a) alarm b) pause c)abort

17 Explain about inter process communication. [10]

OR

18 Define semaphore. Write about semaphore system calls.? [10]

19 a) Explain how to control a shared-memory segment.
b) Explain briefly about the following socket APIs with clear syntax: [4+6]
i) bind( ) ii) listen( )

OR

20 a) Explain how to attach and detach a shared-memory segment.
b) Explain the working of 'fork' and 'join' in TCP/IP sockets. [5+5]