



R20 Regulation

Subject code: 3P7EA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VII Semester Supplementary Examinations, April 2024

Linux Programming
(Computer Science and Engineering)

Maximum Marks: 70

Date: 29.04.2024 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 10 questions. Answer any one question from each.
 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)

- 1 Write the command to make the script "prog1.sh" executable for all users.
- 2 What is Shell and explain how Shell Works
- 3 Define System call?
- 4 Write about the program arguments
- 5 Give the difference between wait and waitpid.
- 6 Differentiate named and unnamed pipes
- 7 Write the function to create a semaphore and write its syntax.
- 8 What is a message queue
- 9 Write the syntax for creating a socket.
- 10 What are Berkeley sockets?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Explain various control structures and their syntax along with a simple program of Linux shell programming. [10]

OR

- 12 Describe UNIX/LINUX file system advantages and also state different commands used in System calls for I/O operations. [10]

- 13 Write about File and Directory maintenance system calls? Give Syntax and examples. [10]

OR

- 14 Explain the following system calls. [10]
a)chmod b)chown c)mkdir d)rmdir e)link

15 Explain signal handling in LINUX. [10]

OR

16 Explain the inter process communication with named pipes. [10]

17 Explain Process synchronization using shared memory. [10]

OR

18 Explain the system calls related to message queues. [10]

19 Create a client-server interaction example using semaphores-shared memory. [10]

OR

20 Write a C program to accept connections from the local clients. [10]