



R17 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

Subject code: 1P7FB

B.Tech IV Year I Semester Regular Examinations, February 2021

LINUX PROGRAMMING

(Information Technology)

Maximum Marks: 70

Date: 23.02.2021 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.
 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 Define Process. What are the utilities available in Process?
- 2 Mention the use of the exec system call and command "pwd"
- 3 Write the syntax of lseek system call.
- 4 Write the syntax of chmod system call.
- 5 Define orphan process
- 6 Differentiate thread and process.
- 7 Define message queue.
- 8 Define pipe. What are the types of pipe?
- 9 What is shared memory?
- 10 Define Berkeley socket.

Part-B

Answer All the following questions.

(10M X 5=50Marks)

- 11 Explain the layered architecture and kernel role in Linux with neat diagram? (10M)
OR
- 12 Explain any five shell commands with proper syntax and example.(10M)
- 13 Explain various system calls for file I/O operations.(10M)
OR
- 14 Explain in detail about the various commands used to work with directory.(10M)
- 15 Discuss in detail about process creation, process execution and process termination.(10M)
OR
- 16 Discuss the following system calls: kill, raise, alarm, pause, abort.(10M)
- 17 How IPC communicate between two process on a single computer system.(10M)
OR
- 18 Define Semaphores. Explain about Semaphores system calls. (10M)
- 19 Explain in detail about the system calls which support connection oriented and connectionless protocol.(10M)
OR
- 20 Discuss in detail about Message Queues.(10M)