



R17 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

Subject code: 1P7EB

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

LINUX PROGRAMMING

(Computer Science and Engineering)

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 Shell and mention the properties of LINUX
- 2 Mention the use of the fork system call and command "passwd"
- 3 Write the syntax of open system call.
- 4 Write the syntax of mount() system call.
- 5 Define zombie process
- 6 Differentiate user priorities and kernel priorities
- 7 Differentiate dependent process and independent process.
- 8 Differentiate named and unnamed pipes.
- 9 Give real time examples for shared memory.
- 10 Define Socket. List the system calls which support socket programming.

Part-B

Answer All the following questions.

(10M X 5=50Marks)

- 11 Explain in detail about the process utilities, text processing utilities and backup utilities. (10M)

OR

- 12 Explain the various shell commands with proper syntax and example. (10M)
- 13 (a) Write short note on file locking and record locking. (5M)
(b) Discuss about File permissions. (5M)

OR

- 14 Discuss the following commands (10M)
 - (a) mkdir(2)
 - (b) rmdir(2)
 - (c) chdir(2)
 - (d) opendir(2)
 - (e) closedir(2)
 - 15 Explain the layout of execution of C program in main memory with example. (10M)
- OR
- 16 (a) Write short notes on signal. (5M)
(b) Differentiate reliable signals and unreliable signals. (5M)
 - 17 Explain in detail about Interprocess communication. (10M)

OR

- 18 Define Semaphores. Explain how kernel support for semaphores.(10M)
- 19 Explain in detail about the system calls which support TCP protocol and UDP protocol.(10M)

OR

- 20 Discuss in detail about the APIs for shared memory.(10M)