R18 Regulation *Subject code:2O7DB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Supplementary Examinations, April 2024

OPERATING SYSTEM

(Electronics and Communication Engineering)

Maximum Marks: 70 Date:25.04.2024 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 5 Units. Answer any one full question from each unit which carries 10M.
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 Operating System.
2 What is the purpose of an operating system ?
3 Define Process.
4 Define Multiprocessor System.
5 Define Deadlock.
6 Explain about Memory Management.
7 Explain about virtual memory.
8 Define file operations.
9 Define the goals of protection.
10 Write an overview of mass storage?

Part-B

Answer All the following questions. (5X10M=50Marks)

11 Explain the difference between Real time operating system and Virtual operating system. [10]

OR

12 A. Explain the hierarchy of memory management. [5]
B. Explain the structure of OS. [5]

13 A. Explain about the CPU scheduling process. [5]
B. Explain about inter process communication. [5]

OR

14 A. Explain about Peterson's solution. [5]
B. Explain about the process control block. [5]

15 A. Explain the concept of deadlock. [5]
B. Explain about deadlock prevention. [5]

OR

16 Explain about memory management and paging. [10]

17 A. Explain about page replacement algorithms. [5]
B. Explain about virtual memory in windows. [5]

OR

18 Explain briefly about file operations and sharing. [10]

19 A. Explain about file system structure. [5]
B. Explain about file structure implementation. [5]

OR

20 Explain about system protection and principles of protection. [10]