Regulation R18 *Subject code:2O7DB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B. Tech VII Semester Supplementary Examinations, November 2023

OPERATING SYSTEM

(ECE)

Maximum Marks: 70 Date:12.12.2023 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	
Answer all the following questions	(10X2M=20 Marks)	Bloom Tx
1	What is an operating system?	L1
2	What do you mean by system call?	L1
3	What is a process?	L1
4	What is independent process?	L1
5	What is the main function of the memory management unit?	L1
6	What do you mean by first fit?	L1
7	What are the typical operations that can be performed on directory?	L1
8	List the various file attributes?	L1
9	Define deadlock?	L1
10	Define principles of protection?	L1
	Part-B	
Answer all the questions.	(5X10M=50 Marks)	
11	Explain briefly about system calls. How system call are used with an example. [10]	L2
	OR	
12	Describe operating system structure in detail. [10]	L2
13	a) Explain about process states and process control block [5] b) Discuss about Multiple processor scheduling? [5]	L2 L1
	OR	
14	What is a semaphore? Explain how producer-consumer problem is solved using semaphores with example pseudo code? [10]	L2
15	What is the need of demand paging? Explain briefly. [10]	L2
	OR	
16	Explain about a) Structure of Page table [5] b) Contiguous memory allocation [5]	L2

17	Explain the following with relevant diagrams: a) Single level directory structure. [5] b) Tree structured directory structure. [5]	L2
	OR	
18	Explain about directory structure in file system? [10]	L2
19	How can deadlock be detected and recovered? Explain in detail with relevant example? [10]	L2
	OR	
20	Explain about Implementation of access matrix. [10]	L2