R22 Regulation *Subject code:4O6BD*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, April 2026

OPERATING SYSTEMS

(EEE)

Maximum Marks: 60 Duration: 3 hours

Note: 1.This question paper contains two parts A and B.
2. Part A is compulsory which carries 10 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 (10X1M=10 Marks)		Marks	CO	Bloom Tx
1.a)	List out operating system services.	1M	1	L1
b)	What is kernel and list its functions.	1M	1	L1
c)	What are the classical problem of synchronization	1M	2	L1
d)	What is a Process?	1M	2	L1
e)	Define Deadlock.	1M	3	L1
f)	What is swapping and its types.	1M	3	L1
g)	Explain Demand Paging.	1M	4	L1
h)	Define virtual address space.	1M	4	L1
i)	List out the operations to be performed on a Directory.	1M	5	L1
j)	Write about file system structure.	1M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	Bloom Tx
2	Explain the various types of system calls with suitable examples.	10M	1	L2
	OR			
3	Distinguish symmetric and asymmetric multiprocessing along with advantages and disadvantages of multiprocessor systems.	10M	1	L2
4	a) Inspect the scheduling criteria for evaluating the CPU scheduling algorithm? b) What is Scheduling? Analyze FCFS scheduling algorithm with example	5M 5M	2	L2
	OR			
5	What are the main characteristics of Real Time Operating System?	10M	2	L2
6	Examine the concept of Swapping.	10M	3	L2
	OR			

7	Distinguish between Segmentation and Paging.	10M	3	L2
8	Summarize the concept of demand paging.	10M	4	L2
	OR			
9	Examine the procedure for handling the page fault in demand paging.	10M	4	L2
10	What is access matrix? What are various methods to implement it?	10M	5	L2
	OR			
11	Classify Directory structure in file system?	10M	5	L2