R20 Regulation *Subject code: 3O7DD*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Supplementary Examinations, October 2026

OPERATING SYSTEMS

(ECE)

Maximum Marks: 70 Date: 30.10.2026 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)	Marks	CO	BTL
1	Define Real time operating systems.	2M	1	L1
2	What do you mean by system call?	2M	1	L1
3	What is Context Switching?	2M	2	L1
4	Tell about entry and exit sections of a critical section.	2M	2	L1
5	Define Deadlock?	2M	3	L1
6	Define Rollback in deadlock recovery.	2M	3	L1
7	Define memory allocation.	2M	4	L1
8	What is demand paging and pure demand paging?	2M	4	L1
9	What are the different methods for allocation in a File System?	2M	5	L1
10	Define Free space management.	2M	5	L1

Part-B

	Answer All the following questions. (5X10M=50Marks)	Marks	CO	BTL
11	Contrast user view and system view of an operating system.	10M	1	L2
	OR			
12	Examine the services of Operating system.	10M	1	L2
13	Examine in detail the critical section problem and also write the algorithms for Readers- Writer's problems with Semaphores.	10M	2	L2
	OR			
14	Examine Schedulers and Process Control block.	10M	2	L2
15	Examine the various methods which we apply for recovery from deadlocks.	10M	3	L2
	OR			
16	Distinguish between Segmentation and Paging.	10M	3	L2

17	Examine the procedure for handling the page fault in demand paging	10M	4	L2
	OR			
18	Examine the concept and performance of demand paging.	10M	4	L2
19	Contrast the approaches of how free space is managed by operating system.	10M	5	L2
	OR			
20	Explain about file system and file operations.	10M	5	L2