



Regulation R18
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 2P5FA

B.Tech V Semester Supplementary Examinations, June/July 2023
OPERATING SYSTEM
(INFORMATION TECHNOLOGY)

Maximum Marks: 70

Date: 23.06.2023 Duration: 3 hours

- Note:**
1. Question paper contains two parts A and B.
 2. Answer all questions in Part A, Each question carries 2 mark.
 3. Answer 5 questions in Part B out of 10 questions. Each question carries 10 marks.

Part-A

Answer all the following questions

(10x2M=20 Marks)

- 1 What is an operating system?
- 2 What do you mean by system call?
- 3 What is a process?
- 4 What is Independent process?
- 5 Define deadlock?
- 6 What do you mean by Best fit?
- 7 Define Thrashing?
- 8 What is file system mounting?
- 9 What do you mean by head crash?
- 10 Define software and hardware object?

Part-B

Answer Any 5 questions.

(5X10M=50 Marks)

- 11 a) Explain briefly about system calls? How system call is used with an example? [5]
b) Explain different operations performed by the operating system. [5]
OR
- 12 Explain about operating system structure. [10]
- 13 Briefly Explain about Interprocess communication models? [10]
OR
- 14 What is a semaphore? Explain how producer-consumer problem is solved using semaphores with example pseudo code. [10]
- 15 How can deadlock be detected and recovered? Explain in detail with relevant example. [10]
OR
- 16 a) Differentiate Internal fragmentation and External fragmentation. [5]
b) What is Belady's anomaly? Explain with one example. [5]
- 17 Explain the following with relevant diagrams:
a) Single level directory structure. [5]
b) Tree structured directory structure. [5]
OR
- 18 Explain briefly about directory structure. [10]
- 19 a) What is directory? Write short note on directory implementation? [5]
b) Explain about linked allocation method of a file. [5]
OR
- 20 Explain about Implementation of access matrix. [10]

