

B. Tech. (Sem. - 4th)
OPERATING SYSTEM
SUBJECT CODE : CS - 202
Paper ID : [A0458]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is Compulsory.
- 2) Attempt any Four questions from Section - B.
- 3) Attempt any Two questions from Section - C.

Section - A

Q1)

(10 × 2 = 20)

- a) Differentiate between parallel systems and distributed systems.
- b) Differentiate between process scheduling and job scheduling.
- c) What is the need of revocation of access rights?
- d) How is the security ensured in an operating system?
- e) Define thrashing.
- f) List some properties of logical address space.
- g) What is semaphore? Explain.
- h) What do you understand by FAT? Explain.
- i) What is the domain of protection? Explain.
- j) What is virtual memory? Explain.

Section - B

(4 × 5 = 20)

- Q2) What resources are used when a thread is created? How do they differ from those when a process is created?
- Q3) Analyze the impact of time quantum in round robin scheduling algorithm.
- Q4) How can timer be used as a CPU protection mechanism? Explain.
- Q5) Explain why it's less costly to enforce controlled access in segmented memory management than in pure paging.
- Q6) Differentiate between multitasking and multiprogramming systems.

Section - C

(2 × 10 = 20)

- Q7) What are the various techniques available for secondary storage management? Describe any two techniques.
- Q8) Explain the security and protection mechanism of LINUX operating system.
- Q9) Explain the Banker's algorithm for detection and avoidance of deadlock with the help of suitable example.

