

Roll No:

Total No. of Questions : 09]

[Total No. of Pages :02

Paper ID [A0458]

(Please fill this Paper ID in OMR Sheet)

B.Tech. (Sem. - 4th)

OPERATING SYSTEM (CS - 202)

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) What is SPOOLING?
- b) What is Resource Allocation Graph?
- c) What is Process Control Block?
- d) What are System Calls?
- e) Define Compaction?
- f) Why is protection of file required?
- g) When the system is in safe state?
- h) Name any four Multi user operating systems?
- i) Define Trojan horse and virus?
- j) Why pages are sizes always powers of 2?

Section - B

(4 × 5 = 20)

- Q2)** Explain various strategies to deal with deadlocks? How deadlock is detected and recovered.
- Q3)** What is fragmentation? Explain the difference between external and internal fragmentation?
- Q4)** Compare various memory management techniques.
- Q5)** Explain the architecture of LINUX Operating System.
- Q6)** Discuss various methods of file allocation with advantages and disadvantages?

Section - C

(2 × 10 = 20)

- Q7)** What do you mean by scheduling? Explain with example the Shortest Job First (SJF) scheduling and Round robin scheduling algorithm?
- Q8)** Explain Segmentation with help of an example.
- Q9)** Explain the difference between Distributed and Multiprocessor operating systems.

