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.