

Roll No. ....

Total No. of Pages 02

Total No. of Questions : 09

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

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

**Time : 03 Hrs.**

**Max. 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**

**( 10 \*2 = 20 Marks )**

Q1.

- a) What is a real time operating system?
- b) List any five functions of operating system.
- c) Give any one difference between a process and a thread.
- d) Explain best fit and worst fit algorithm of allocation.
- e) What is a distributed system?
- f) List four necessary conditions for dead lock.
- g) What is a system call? Explain with example.
- h) What is a kernel?
- i) Explain the difference between a program and a process.
- j) Discuss concurrency.

**SECTION - B**

**( 4\*5 = 20 Marks )**

- Q2. State and discuss the differences between Multiprogramming and Multitasking.
- Q3. What are distributed and non distributed operating systems?
- Q4. What is a scheduler? How many types of schedulers coexist in a complex operation system? Explain.
- Q5. Explain the difference between internal fragmentation and external fragmentation. Which one occurs in paging system?
- Q6. Explain Deadlock Prevention Vs Avoidance.

**SECTION - C**

**( 2\*10 = 20 Marks )**

- Q7. What is virtual memory? What are its various advantages?
- Q8. What is file system? Explain file protection and allocation methods.
- Q9. What is Process in Linux? Explain '&' and 'kill' in detail.