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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE/IT) (Sem.-4)
OPERATING SYSTEM
Subject Code : CS-202
Paper ID : [A0458]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students has to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students has to attempt any **TWO** questions.

SECTION-A

1. Write Briefly :

- (a) What is the main advantage of multiprogramming?
- (b) What is the difference between a hard real time system and soft real time system?
- (c) What is the difference between short term scheduler and long term scheduler?
- (d) What is the disadvantage of FCFS scheduling algorithm?
- (e) Define the term semaphore.
- (f) Describe the *concept* of swapping.
- (g) Compare thread and process.
- (h) Why are page size always power of 2?
- (i) What do you mean by memory reference string?
- (j) What is the difference between seek time and rotational latency time?

SECTION B

2. Explain the goals of protection system.
3. What are distributed systems ? Explain their advantages and disadvantages.
4. Explain the features of Linux system.
5. What is process control block? Explain the contents in process control block.
6. List the advantages and disadvantages of contiguous memory allocation.

SECTION C

7. What is deadlock? Explain different conditions required to occur a deadlock. How deadlock prevention is possible?
8. What is thrashing? Describe the cause of thrashing. How thrashing can be prevented?
9. Explain the different security techniques with their advantages and disadvantages.