

Roll No. ....

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (EE/EEE) (Sem.-7<sup>th</sup> & 8<sup>th</sup>)**OPERATING SYSTEM**

Subject Code : CS-202

Paper ID : [A0442]

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****I. Write briefly :**

- a) What is the use of inter process communication?
- b) What is meant by context switch?
- c) Differentiate tightly coupled systems and loosely coupled systems.
- d) What do you mean by system calls?
- e) What is process control block?
- f) Compare user threads and kernel threads.
- g) What is preemptive and no preemptive scheduling?
- h) What are the benefits of multithreaded programming?
- i) Define logical address and physical address.
- j) What is the use of job queues, ready queues and device queues?

**SECTION-**

2. Explain the architecture of an operating system.
3. What do you mean by processor scheduling and scheduling.
4. What is semaphore and synchronization of semaphore.
5. What is thrashing? What is the cause of thrashing? How to detect thrashing?
6. Describe the salient features of the file system.

**SECTION-**

7. Describe deadlock detection and recovery algorithm in a system.
8. Explain the principles of segmentation and paging.
9. Explain the term "process" from the operating system point of view. Draw a necessary diagram. How does multi programming increase the utilization of a computer system?

