

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE & DS) (Sem.-4)

OPERATING SYSTEMS

Subject Code : BTCS-402-18

M.Code : 91950

Date of Examination : 13-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS 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 have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a. List the services provided by an Operating System?
- b. Write at least two advantages of layered architecture of Operating System.
- c. Define the term Turnaround time and Waiting time.
- d. Explain in brief about context switching.
- e. What are the advantages of inter-process communication? Explain.
- f. What do you mean by Monitors? Explain.
- g. What is meant by Demand Paging?
- h. Define Locality of Reference?
- i. Differentiate between deadlock avoidance and deadlock prevention?
- j. Explain in brief about Bad blocks.

SECTION-B

2. Write a detailed note on concept of virtual machine.
3. What is a process? Explain about various fields of Process Control Block.
4. What is virtual memory? Discuss the benefits of virtual memory techniques.
5. What is a deadlock? How deadlocks are detected?
6. Write a short note on Disk management.

SECTION-C

7. Explain in detail about different types of Operating Systems.
8. Write a detailed note on Multiprocessor scheduling.
9.
 - a. What is a Critical Section problem? Give the conditions that a solution to the critical section problem must satisfy.
 - b. What is Semaphore? Explain producer consumer problem using semaphore.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.