

Total No. of Pages : 02

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Total No. of Questions : 09

B.Tech. (Civil Engineering / Electrical Engineering / Electronics & Communication Engineering) (Sem.-6)

## OPERATING SYSTEM

Subject Code : BTCS 402-18

M.Code : 79262

Date of Examination : 18-11-2023

Max. Marks : 60

Time : 3 Hrs.

### 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. Define system calls.
  - b. What is role of Microkernel?
  - c. What is Preemptive scheduling?
  - d. Differentiate Program vs process.
  - e. What is context switching?
  - f. Define critical section.
  - g. Write a short note on semaphores.
  - h. What is directory structure?
  - i. Discuss Goal of Interrupt handler.
  - j. Give concept of Disk formatting.

### SECTION-B

2. Write an overview of UNIX operating system.
3. What is Waiting Time and Turnaround Time for given Process and how it is used in SJF?
4. Write of concept of Threads and its types.
5. What is Paging? Show the hardware support of Paging.
6. Write a short note on allocation methods used in operating system.

### SECTION-C

7. What are the conditions for Deadlock? How the Banker's algorithm is used in Deadlocks?
8. Discuss the Inter process communication. How the reader's and writer problem illustrates the concept of synchronization?
9. What is the role of Disk Management in operating system? Explain various disk scheduling algorithms.

**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.**