

Roll No.

24252

**B. Tech. 5th Semester (CS & IT)
Examination – February, 2022**

PRINCIPLES OF OPERATING SYSTEM

Paper : CSE-301-F

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting **one** question from each Unit. Q. No. 1 is **compulsory**.
All questions carry equal marks.

1. Write short notes on following : **20**

- (i) Multitasking operating system
- (ii) Physical address space
- (iii) Deadlock
- (iv) I/O system

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P. T. O.

UNIT - I

2. Describe the following : 20
- (i) Distributed OS
 - (ii) Real Time OS
 - (iii) Multithreading operating system
3. (i) Define process. Explain operation on processes in detail. 10
- (ii) Describe multilevel queue scheduling in detail. 10

UNIT - II

4. Explain the following : 20
- (i) Contiguous and Non-contiguous memory allocation.
 - (ii) Segmentation
5. Describe the following : 20
- (i) Demand segmentation
 - (ii) Demand paging

UNIT - III

6. Define file. Describe different types of files and their access methods. Also describe various allocation methods. 20
7. Explain the following : 20
- (a) Semaphores
 - (b) Deadlock recovery

UNIT - IV

8. What do you understand by I/O systems ? Explain in detail. 20
9. Describe Windows NT architecture in detail. Also explain Windows NT file system. 20