OLE-24252

B. Tech. 5th Semester (CS & IT) Examination – April, 2021

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. Question No. **1** is *compulsory*. All questions carry equal marks.

1. Write short note on the following :   5 × 4 = 20

   (a) System Programs and calls

   (b) Demand Segmentation

   (c) Distributed File System

   (d) Window NT architecture

UNIT – I

2. What is an operating system ? Explain its types in detail. 20

3. Differentiate between : $10 \times 2 = 20$

    (a) Multitasking and Multiprogramming.

    (b) FCFS scheduling algorithm and SJF scheduling algorithm.

UNIT – II

4. What is segmentation with paging ? Explain various Segmentation techniques in detail. 20

5. What is Demand Paging ? Explain various Page Replacement Algorithms in detail. 20

UNIT – III

6. Describe disk scheduling and management and its associated algorithms in details. 20

7. What is Critical Section Problem ? Explain various methods for deadlocks handling and prevention. 20

UNIT – IV

8. Write short note on the following : $10 \times 2 = 20$

(a) Application I/O Interface

(b) Transforming I/O requests

9. Describe UNIX system call for processes and file system management.   20

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