

Roll No :

Total No. of Questions : 10]

[Total No. of Printed Pages : 2

BC-273

B.C.A. (Part-III) DUE IInd Year Examination, 2021

OPERATING SYSTEM

Paper - BCA-204

Time : 1½ Hours]

[Maximum Marks : 50

Note :- Attempt *five* questions in all, selecting *one* question from each Unit. All questions carry equal marks.

Unit-I

10 each

1. What are different functions of Operating System ? Explain the operating system structure with its components.
2. Discuss about process scheduling criteria. Explain briefly about Round Robin scheduling algorithm with suitable example.

Unit-II

10 each

3. Explain *four* necessary conditions for deadlock to occur. Describe banker's algorithms for deadlock avoidance.
4. What is the need of memory management in operating system ? Find out page faults for FIFO and LRU page replacement algorithm for string 7, 0, 1, 2, 0, 3, 0, 4, 2, 3, 0, 3, 2, 1, 2, 0, 1, 7, 0, 1. The number of frames in the memory is 3.

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Unit-III

10 each

5. What is seek time and rotational latency in disk scheduling ? Explain FCFS and SSTF disk scheduling algorithms.
6. What is Distributed Operating System ? Differentiate between Network and Distributed Operating System with advantages and disadvantages of each.

Unit-IV

10 each

7. Explain File and directory structure of UNIX with neat diagram and its characteristics.
8. Discuss the various types of files supported by UNIX. Explain Inode and Block Storage feature of UNIX.

Unit-V

10 each

9. What is the use of VI Editor in Linux ? Explain their working modes and commands.
10. Explain different types of shell variables. Write a shell script to print Fibonacci series by using for loop.