

Roll No. _____

Code No. PCS-032

SECOND SEMESTER EXAMINATION 2021-22

Class - B.C.A.

Subject - Operating System

Time : 2.30 Hrs.

Max. Marks : 80

Total No. of Printed Page : 05

Mini. Marks : 28

Note: Question paper is divided into three sections. Attempt question of all three section as per direction. Distribution of Marks is given in each section.

Section - 'A'

Attempt two from each unit.

10x2=20

Unit - I

1. Define operating system ?
2. Why do we need an operating system ?
3. Define terms multi tasking ?

Unit - II

4. Define Threads.
5. What do you mean by synchronization ?
6. Define term multiprocessor system ?

(2)

Unit - III

7. What are the Advantages of paging scheme ?
8. Define Demand segmentation.
9. Why swapping is needed ?

Unit - IV

10. Why disk scheduling is necessary.
11. Define Shared Devices.
12. Explain Buffering.

Unit - V

13. Explain the concept of file system.
14. What do you mean by Protection ?
15. Explain free-space management.

Section - 'B'

Attempt all questions.

Short Answer Question (Word limit 60 words)

5x6=30

Unit - I

16. Explain operating system Architecture ?

OR

(3)

Describe process model in detail ?

Unit - II

17. What are schedules ? Explain in Brief the various levels of schedules ?

OR

Discuss the concept and importance of semaphores ?

Unit - III

18. What do you mean by swapping ? How does it help in memory management.

OR

Write the comparison between paging and segmentation ?

Unit - IV

19. Explain the most common Disk Scheduling policies ?

OR

Explain uses of Buffering in device and storage management ?

Unit - V

20. Describe some common file types with their extension and functions in Brief ?

(4)

OR

Define attributes of files ? Compare sequential and direct access ?

Section - 'C'

Attempt any two questions.

Long answer question (word limit 120 words.)

2x15=30

Unit - I

21. Explain the following operating system concept :

- (i) Processes
- (ii) Files
- (iii) System calls

Unit - II

22. Discuss the FCFS scheduling algorithm with example :

Process	CPU Burst Time
P1	7
P2	8
P3	5
P4	4

Unit - III

23. Explain the page "replacement Technique ". Why it is needed ?

(5)

Unit - IV

24. Explain about secondary storage structure with its advantages ?

Unit - V

25. Describe some common file types with their extension and function in Brief.

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