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47823/D0230

Reg. No.

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IV Semester BCA.6 Degree Examination, October - 2023

Operating System Concepts

(Regular)

Time : 2 Hours

Maximum Marks : 60

Instructions to Candidates:

1. Answer all sections subject to internal choice.
2. Draw the diagrams wherever necessary.

SECTION - A

Answer any Ten questions, each carries 2 marks.

(10×2=20)

1. Define OS. Give Example.
2. What do you mean by process?
3. What is multithreading?
4. Write any two purposes of process scheduling.
5. What is critical section?
6. Define Deadlock.
7. Distinguish between semaphore and monitor.
8. Name the dynamic storage allocation methods.
9. What is paging?
10. Define Thrashing.
11. Name the file attributes.
12. What is directory?

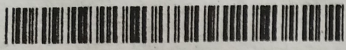
SECTION - B

Answer any Four questions, each carries 5 marks.

(4×5=20)

13. Describe the structure of operating System.
14. Explain FCFS CPU scheduling with an example.

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15. Discuss Dining philosophers problem.
16. Explain segmentation with paging.
17. Describe sequential file access and Direct file access methods of file.

SECTION - C

Answer any Two questions, each carries 10 marks.

(2×10=20)

18. Consider the following set of processes with CPU Burst time.

Process Burst Time

P1 8

P2 4

P3 6

P4 2

P5 5

- i) Draw a Gantt chart to show execution using SJF scheduling.
 - ii) Calculate average turn around time for SJF scheduling.
 - iii) Calculate average waiting time and average response time using SJF Scheduling.
19. a) Describe the Benefits of threads.
 - b) Explain Banker's algorithm of deadlock avoidance.
20. a) Discuss page replacement algorithm.
 - b) Explain contiguous file allocation method.
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