

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
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B. Tech 5th Semester Examination

Basics of Operating System (CBS)

CS-507

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : (i) Answer only one question from the sections A, B, C, D. Each question carry 12 marks.

(ii) Section E is compulsory. Each question carry 2 marks.

SECTION - A

1. What is Operating System? Discuss its types. (12)
2. Explain CPU Scheduling algorithms with the help of suitable examples. (12)

SECTION - B

3. What are page replacement algorithms? Discuss LRU and Optimal Page Replacement Algorithms. Which Page Replacement algorithm suffers from Belady's Anomaly? (12)
4. What is computer virus? Explain its types in detail. (12)

SECTION - C

5. Discuss file system with its types in detail. (12)
6. Explain Contiguous memory allocation with its significance in detail. (12)

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SECTION - D

7. Write a note on:
 - (a) Directory structure and its implementation. (6)
 - (b) Virtual memory and Overlays. (6)
8. Differentiate between:
 - (a) Paging and Segmentation. (6)
 - (b) Fixed and Variable partitioning. (6)

SECTION - E

9. (a) What is computer worm?
 - (b) Write a short note on fourth generation operating system.
 - (c) Explain States of process.
 - (d) Discuss NTFS file system.
 - (e) What is Interprocess communication?
 - (f) Give a difference between a thread and a process. (6×2=12)