

TB146260A

Reg. No.....

Name.....

B. Sc. DEGREE (C.B.C.S.S) EXAMINATION, MARCH 2017

SEMESTER VI – COMPUTER APPLICATIONS

CA60S – OPERATING SYSTEMS

Time: Three Hours

Maximum Marks: 80

PART A

I. Answer all questions. Each question carries 1 mark.

1. Define embedded systems.
2. What do you mean by client-server computing?
3. Define PCB.
4. What is race condition?
5. What is starvation in OS?
6. Define logical address.
7. What is MMU?
8. What is hash table?
9. What do you mean by compaction?
10. What do you mean by swapping?

(10x1=10)

PART B

II. Answer any eight of the following. Each question carries 2 marks.

11. Explain any two interfaces for Operating System.
12. What do you mean by caching?
13. Explain the Dining-Philosophers Solution using Monitors.
14. What is the purpose of Resource-Allocation graph?
15. What do you mean by circular wait?
16. What do you mean by demand paging?
17. What do you mean by sparse address space?
18. Which are the different file attributes?
19. Define shared lock related with a file.
20. Which are the different types of operations that could be performed on?
21. Which are the file access methods?
22. What do you mean by resource pre-emption?

(8x2=16)

PART C

III. Answer any six of the following. Each question carries 4 marks.

23. Write a note about system calls.
24. Define a process and explain process states with diagram.
25. Explain any two classic problems of synchronization.
26. Which are the necessary conditions for deadlock?
27. Briefly explain LRU page replacement mechanism.
28. Explain Fragmentation.
29. Explain virtual memory.
30. Briefly discuss the file control block.
31. Explain file recovery, backup and restore mechanism. **(6x4=24)**

PART D

IV. Answer any two of the following. Each question carries 15 marks.

32. Explain different types of scheduling algorithms.
33. Define deadlock. Explain how the system handles this situation?
34. Discuss the paging and segmentation used in memory management.
35. Explain different file allocation methods. **(2x15=30)**