



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc., DEGREE EXAMINATION – COMPUTER SCIENCE

FIFTH SEMESTER – NOVEMBER 2013

CS 5504 – OPERATING SYSTEM

Date : 05/11/2013
Time : 9:00 - 12:00

Dept. No.

Max. : 100 Marks

PART-A

Answer ALL Questions:

(10 x 2 = 20 marks)

1. Define Process.
2. What is a BIOS?
3. State the various Conditions for Deadlock.
4. What are all the different process states?.
5. What do you mean by degree of multiprogramming?.
6. Define: Swapping.
7. What is a Device Controller?
8. Define Polling.
9. Define Kernel.
10. What is the need of an Object Manager in windows 2000?

PART – B

Answer ALL Questions:

(5 x 8 = 40 marks)

11. a. Discuss on the System calls for process management.
(OR)
b. Write a note on system calls.
12. a. Explain about semaphores in detail.
(OR)
b. Find the Average Waiting time for the following processes using
i. First Come First Served - Processes : 24,5,5
ii. Round Robin Scheduling – processes 53,17,68,24 Time Quantum = 20.
13. a. Explain the following
i. Least Recently used Page Replacement Algorithm
ii. Optimal Page Replacement Algorithm.
(OR)
b. Discuss on various implementation issues in Paging.
14. a. Discuss on Buffering in detail.
(OR)
b. Explain CD-ROMs in detail.
15. a. Explain about various Directory Operations.
(OR)
b. Discuss on the structure of the Windows 2000 Operating System

PART -C

Answer any TWO Questions:

(2 x 20 = 40 marks)

16. a. Explain about the Operating system Structure in detail. (10 marks)
b. Discuss on Deadlock Avoidance in Detail with an example. (10 marks)
17. a. Explain about Virtual Memory Management in detail. (10 marks)
b. Discuss on Network Terminals in detail. (10 marks)
18. a. Explain about Files. (10 marks)
b. Discuss on Memory Management in Unix. (10 marks)

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