



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

FIFTH SEMESTER – APRIL 2013

CS 5504/CS 5501 - OPERATING SYSTEM

Date: 08/05/2013
Time: 9:00 - 12:00

Dept. No.

Max. : 100 Marks

PART - A

ANSWER ALL THE QUESTIONS:

(10 x 2 = 20 marks)

1. What are the system calls associated with the process management?
2. Define process table.
3. What is meant by daemons?
4. What are the conditions that must be present for a deadlock to occur?
5. Define memory compaction.
6. What is meant by Memory Management Unit?
7. What is memory-mapped I/O?
8. Define RS-232 terminals.
9. What are the categories of the Unix utility programs?
10. What is meant by Win32 API?

PART – B

ANSWER ALL THE QUESTIONS:

(5 x 8=40 marks)

11. a) Explain a simple structuring model for a monolithic system.
(Or)
b) List out the POSIX system calls associated with the directory and file system management.
12. a) Discuss about the banker's algorithm for a multiple resource.
(Or)
b) Explain the OSTRICH algorithm in the process of deadlock.
13. a) Explain the concept of swapping with an example.
(Or)
b) Explain any two page replacement algorithms.
14. a) What are the goals of the I/O software?
(Or)
b) Describe in detail about the Interrupt-Driven I/O.
15. a) Describe various Is options in UNIX using wild cards with an example.
(Or)
b) Explain some of the Win32 API calls for using the registry.

PART – C

ANSWER ANY TWO QUESTIONS:

(2x20=40 marks)

16. a) Explain the structure of the operating system.
- b) Describe the client-server model of the operating system.
17. a) Discuss in detail about the deadlock prevention.
- b) Explain the graphical user interfaces and their significance.
18. a) Explain in detail about Files and Directories.
- b) Discuss in detail about memory management in Unix.

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