LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.C.A. DEGREE EXAMINATION – **COMPUTER APPLICATIONS**

SECOND SEMESTER – **APRIL 2016**

CA 2807 – OPERATING SYSTEMS

Date: 27-04-2016   Dept. No.   Max. : 100 Marks
Time: 01:00-04:00

PART – A

Answer ALL questions: **(10 x 2 = 20 marks)**

1. What do you mean by Monolithic OS?

2. What is the use of ping command?

3. Give the syntax for **if** loop in shell programming.

4. Compare chmod and fchmod functions in UNIX.

5. Distinguish between fstat and lstat function.

6. What are the fields in the password file?

7. Define Thread.

8. How to calculate Response ratio.

9. What is socket?

10. What are the common function of resolver in DNS?

PART – B

Answer ALL questions: **(5 x 8 = 40 marks)**

11. a) Explain the various functions of Operating System.

(or)

   b) Write a shell program for Payroll calculation.

12. a) Discuss File access permissions in detail.

(or)

   b) Write short notes on the following system calls

        i) lseek   ii) read/write

13. a) What are the different stages of Process? Explain.

(or)

   b) Explain the concept of Shared memory in Inter-Process Communication.

14. a) Explain Static vs Dynamic Partition in memory management

(or)

   b) Discuss the concept of Paging in detail.

15. a) Explain Raw socket and its relevant functions.

(or)

   b) Discuss the functions of each layer in OSI reference model.

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PART – C

Answer any TWO questions   **(2 x 20 = 40 marks)**

16. a) Write the syntax of Case statement with a sample Shell program.

    b) Explain the concept of Symbolic link and its related function.

17. a) Explain the following IPC concept:

    i. Pipes.   ii FIFO.

    b) Discuss Preemptive scheduling algorithms in detail.

18. a) Discuss the functions of UDP sockets.

    b) Write a program for parent-child process creation using fork.

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