



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

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

SECOND SEMESTER – APRIL 2017

**16PCA2MC05- OPERATING SYSTEMS**

Date: 28-04-2017  
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

**PART – A**

Answer ALL questions:

**10\* 2 = 20**

1. What are the different services of OS?
2. What are the common scheduling objectives?
3. Define Preemptive scheduling.
4. Give the syntax for *for* loop in shell programming
5. Compare *utmp* and *wtmp* file.
6. Distinguish between *fstat* and *lstat* functions.
7. What are the fields in the Group file?
8. Define Thread
9. Define Semaphore.
10. What is the use of Traceroute command?

**PART – B**

Answer ALL questions:

**5\* 8 = 40**

11. a) Explain the architecture of UNIX in detail.  
(or)  
b) Explain Round-Robin scheduling in detail.
12. a) Discuss Paging concept in detail.  
(or)  
b) Explain Process Control Block. Draw the block diagram of process transition states.
13. a) What do you mean by system call and discuss the different types of system calls.  
(or)  
b) Explain the different kinds of files in detail.
14. a) Explain the concept of client server communication using FIFO.  
(or)  
b) Discuss Deadlock avoidance in detail.

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

(or)

b) Discuss the basic socket functions in detail.

PART – C

Answer any TWO questions

**2 \* 20 = 40**

16. a) Discuss any two Non-preemptive scheduling algorithms in detail.

b) Discuss Segmentation in detail.

17.a) Discuss the concept of File system in detail.

b) Discuss Inter Process Communication using Message queue.

18. Discuss all the functions of UDP sockets.

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