LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. &B.C.A.DEGREE EXAMINATION –**COMPUTER SCIENCE &APPLICATIONS**

FIFTH SEMESTER – **APRIL 2019**

16UCA5MC03 / CA/CS 5510 – OPERATING SYSTEM

Date: 16-04-2019   Dept. No.   Max. : 100 Marks
Time: 09:00-12:00

PART – A

ANSWER ALL THE QUESTIONS   **(10 * 2 = 20 MARKS)**

1. What is Real Time Systems?

2. What is Dual Mode Operation?

3. What is a Dispatcher?

4. Define Semaphore.

5. What are the different types of Address Binding.

6. What is External and Internal Fragmentation?

7. Write Belady's Anomaly.

8. What is Thrashing?

9. List the file attributes.

10. What is a Linux Shell?

PART – B

ANSWER ALL THE QUESTIONS: **(5 * 8 = 40 MARKS)**

11. a) What is a System Call? Explain in detail.
                    (OR)

 b) Write notes on IPC.

12. a) Explain Pre-emptive scheduling and functions of Dispatcher..
                    (OR)

 b) Explain how Deadlock can be prevented.

13. a) Discuss Segmentation in detail.
                    (OR)

 b) Define i) Dynamic Loading   ii) Dynamic Linking   iii) Swapping and   iv) Overlays

14. a) Explain File Access Methods.

(OR)

b) Explain Directory Structure briefly.

15. a) Write notes on Free Space Management.

(OR)

b) Explain SSTF and SCAN Scheduling.

PART – C

ANSWER ANY TWO QUESTIONS   (2 * 20 = 40 MARKS)

16. a) Explain the Operating System Services in detail.

b) Explain any two CPU Scheduling Algorithms.

17. a) Explain Banker's Algorithm.

b) Explain Paging in detail.

18. a) Explain File Allocation methods.

b) Explain any two Page Replacement algorithms.

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