



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

SIXTH SEMESTER – APRIL 2023

16/17/18UCS6MC04 – OPERATING SYSTEM

Date: 08-05-2023

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

PART – A

Q. No

Answer ALL questions

(10x 2 = 20 Marks)

- 1 What is an operating system?
- 2 Mention the purpose of contact switches?
- 3 Define semaphore.
- 4 What is safe state?
- 5 Define compaction.
- 6 What is the advantage of dynamic linking
- 7 What is Belady's Anomaly?
- 8 Write the purpose of file control block.
- 9 List out the different allocation of memory in operating system.
- 10 Compare SCAN and C-SCAN of disk scheduling algorithm.

PART – B

Answer ALL the questions

(5x 8= 40 Marks)

- 11 a) Explain the various services of an operating system.
(OR)
b) Discuss the different operations on processes.
- 12 a) Write a short note on critical section problem.
(OR)
b) Define Deadlocks and explain its characterization.
- 13 a) Explain the paging hardware with neat diagram.
(OR)
b) Discuss different type of Fragmentations.
- 14 a) Explain the procedure for handling the page fault with neat diagram
(OR)
b) Elaborate the file attributes and the methods of file protection
- 15 a) Describe the file allocation techniques.
(OR)
b) Discuss in detail about the disk structure.

PART – C

Answer any TWO questions

(2 x 20 = 40 Marks)

- 16 Explain the different CPU scheduling algorithms with examples.
- 17 Write and explain Bankers algorithm with its purpose.
- 18 Discuss the different page replacement algorithm with an example for each type.

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