



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

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

**FIFTH SEMESTER – APRIL 2023**

**CS/CA 5504 – OPERATING SYSTEM**

Date: 09-05-2023

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

**PART A**

Answer ALL the questions.

**(10 x 2 = 20 marks)**

1. What are Operating Systems?
2. Define Process.
3. Draw PCB.
4. What is a CPU scheduler?
5. What is turnaround time?
6. What is swapping?
7. Mention the purpose of compaction.
8. List any two principles of I/O hardware.
9. What is the purpose of register?
10. Define a file.

**PART B**

Answer ALL the questions.

**(5 x 8 = 40 marks)**

11. a. Explain about operating system structure.  
(OR)  
b. Explain the different state of process of operating system with neat diagram
12. a. Write a short note on Inter process communication.  
(OR)  
b. Explain the steps involved to prevent deadlock.
13. a. Discuss the fragmentation and its types.  
(OR)  
b. Write short note on Segmentation.
14. a. Write a short note on the principles of I/O software.  
(OR)  
b. Write about Disk management in operating system
15. a. Describe some common file extensions in the file naming mechanism.  
(OR)  
b. Explain different file types in UNIX.

**PART C**

Answer any TWO questions.

**(2 x 20 = 40 marks)**

16. Discuss different types of scheduling algorithms with examples.
17. Explain different page replacement algorithms with an example.
18. a) Discuss about LINUX commands for directory and files.  
b) Describe the common schemes for designing the logical structure of a directory.

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