



QP CODE: 24803739



24803739

Reg No :

Name :

INTEGRATED MSC DEGREE EXAMINATION, JUNE 2024

Second Semester

CORE - ICSC2CR4 - OPERATING SYSTEMS

INTEGRATED MSC COMPUTER SCIENCE-ARTIFICIAL INTELLIGENCE AND MACHINE
LEARNING & INTEGRATED MSC COMPUTER SCIENCE- DATA SCIENCE

2020 Admission Onwards

D4F70E05

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Define operating system.
2. What do you mean by system calls?
3. Discuss the function process management.
4. WHAT IS MEAN BY DISPATCH LATENCY?
5. Mention the methods used to synchronize processes.
6. WHAT IS CONCURRENT PROCESS?
7. What is load time binding?
8. What is a hole in memory?
9. What is file? Name its attributes.
10. Explain the advantages and disadvantages of hierarchical directory systems

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Explain Process management and memory management functions in OS.
12. Illustrate process state diagram.
13. Explain context switch.





14. EXPLAIN THE CRITICAL SECTION PROBLEM AND SOLUTION TO CRITICAL SECTION PROBLEM
15. HOW TO ELIMINATE DEADLOCK BY PREEMPTING RESOURCE?
16. What is thrashing and explain its causes?
17. Consider page reference string 1, 3, 0, 3, 5, 6, 3 with 3 page frames. Find the number of page faults using FIFO replacement algorithm.
18. Differentiate between contiguous and non contiguous allocation methods.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Explain different types of operating systems.
20. WHAT IS THREAD ,MULTITHREADING EXPLAIN ITS ADVANTAGES AND DISADVANTAGES.
21. Discuss different types of semaphores with algorithms.
22. Explain the address translation in segmentation with a neat diagram.

(2×5=10 weightage)

