



B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, MARCH 2024 Sixth Semester

B.Sc Computer Applications Model III Triple Main

CORE COURSE - CT6CRT03 - OPERATING SYSTEMS

2017 Admission Onwards 69799D63

Time: 3 Hours Max. Marks: 80

Part A

Answer any **ten** questions.

Each question carries **2** marks.

- 1. What is the multiprocessor system and give their adavantage?
- 2. Define system calls.
- 3. Define operating system interface.
- 4. Define PCB.
- 5. Define CPU Dispatcher.
- 6. Define Process creation and Termination.
- 7. What are the entery section and exit section in critical section?
- 8. Define Banker's Algoritham.
- 9. Define a 'Hole' in contiguous memory Allocations.
- 10. Define Virtual Memory.
- 11 What are the functions of virtual file system (VFS)?
- 12. Define acyclic graph directory and General graph directory.

 $(10 \times 2 = 20)$

Part B

Answer any **six** questions.

Each question carries **5** marks.



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- 13. Explain os services.
- 14. Explain the message passing system.
- 15. Explain process scheduling criterias.
- 16. What is Synchronization hardware?
- 17. Explain swapping with neat diagram.
- 18. Explain the structure of a page Table.
- 19. Explain Demand paging.
- 20. What are the various layers of file system?
- 21. Explain SCAN Disk scheduling.

 $(6 \times 5 = 30)$

Part C

Answer any two questions.

Each question carries 15 marks.

- 22. Explain the functions of OS.
- 23. Explain scheduling algorithms.
- 24. What are the Different classic problems of Synchronization
 - a)The Bounded-Buffer Problem
 - b)The Readers Writers Problem
 - c)The Dining Philospher's Problem
- 25. Explain different file allocation methods.

 $(2 \times 15 = 30)$

