

QP CODE: 24026947

Reg No 2 Name 2

B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, OCTOBER 2024

Third Semester

B.Sc Electronics and Computer Maintenance Model III

Core Course - EM3CRT03 - OPERATING SYSTEM CONCEPTS

2017 Admission Onwards

90D319D3

Time: 3 Hours

Max. Marks: 80

Part A

Answer any ten questions.

Each question carries 2 marks.

- 1. Why do you need an Operating System in a computer?
- 2. What is a system calls?
- 3. What are threads?
- What is non Pre-emption? 4.
- What is mutual exclusion? 5.
- 6. What is meant by a context switch?
- What is internal Fragmentation? 7.
- Define the term page-fault trap. 8.
- 9. What is global descriptor table?
- 10. Write a note on File Protection.
- 11. Define General Graph Directory.
- 12. Write a note on Counting.

 $(10 \times 2 = 20)$

Part B

Answer any **six** questions. Each question carries 5 marks.

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- 13. What are the advantages and limitations of multiprocessing system?
- 14. Explain schedulers.
- 15. What are the different CPU-scheduling criteria?
- 16. Write a note Resource Pre-emption.
- 17. Write a note on Page Table.
- 18. What is dynamic linking and shared libraries?
- 19. Write a note on Demand Paging.
- 20. Write a note on Tree-Structured Directories.
- 21. Explain Allocation Methods-Contiguous and Linked allocation.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **15** marks.

- 22. Explain the different Operating system components in detail.
- 23. What is a Deadlock? Explain its prevention and avoidance methods.
- 24. Explain Page Replacement with FIFO, LRU, LRU Approximation algorithms.
- 25. Explain different File Access Methods in detail.

(2×15=30)