



C16-CM-303

6229

BOARD DIPLOMA EXAMINATION, (C-16)

JUNE—2019

DCME—THIRD SEMESTER EXAMINATION

OPERATING SYSTEMS

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Define operating system with example.
2. List any five types of operating systems.
3. List the various techniques of deadlock prevention.
4. Draw the process state diagram.
5. What are the scheduling criteria for CPU scheduling algorithms?
6. What is internal fragmentation and external fragmentation?
7. What is overlay?
- * 8. List various free space management techniques.
9. What is indexed allocation of disk space?
10. What are the ways to protect files on a single user system?

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PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain (a) multiprocessor system and (b) timesharing operating systems.
12. Explain multi queue feedback scheduling algorithm.
13. Explain how deadlocks can be avoided and detected.
14. Explain the working of long-term, short-term, medium-term schedulers.
15. Explain the concept of paging with examples.
16. Explain about multiple partition allocation.
17. Explain the following free space management techniques :
 - (a) Linked list
 - (b) Counting
18. Explain how files can be protected in detail with examples.

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