



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?**

**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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