



C14-CM-402/  
C14-IT-402

**4450**

**BOARD DIPLOMA EXAMINATION, (C-14)  
OCT / NOV-2017  
DCME-FOURTH SEMESTER EXAMINATION  
OPERATING SYSTEMS**

Time : 3 Hours ]

[ Total Marks : 80

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**PART - A**

3 x 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. What are multiprogramming and timesharing?
2. Define the term 'System Call' with an example.
3. What are the components of Process Control Block?
4. List the various types of schedulers.
5. Define the term 'Inter Process Communication' with an example.
6. What is an External Fragmentation?
7. Define Paging and Segmentation.
8. Explain briefly about the Free Space Management.

- \*9. List the various disk scheduling algorithms.
10. What are the functions of File Management System?

**PART - B**

10 x 5 = 50

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

11. Explain the components of Operating System.
12. Draw and Explain the Process State Diagram.
13. Explain the Deadlock Prevention techniques with an example.
14. Explain about scheduling algorithms SJF and Round Robin.
15. Explain the term 'Demand Paging Concept' in memory management.
16. Explain about page replacement algorithms FIFO and LRU.
17. Explain about the various disk allocation methods.
18. Explain the different types of 'directory' structure.

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