



C09-CM-402/C09-IT-402

**3459**

**BOARD DIPLOMA EXAMINATION, (C-09)  
OCT/NOV—2015  
DCM—FOURTH SEMESTER EXAMINATION  
OPERATING SYSTEMS**

Time : 3 hours ]

[ Total Marks : 80

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**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. Write how a real-time operating system is different from time-sharing.
2. What do you mean by spooling and buffering?
3. What are the different states of a process?
4. What resources are used when a thread is created? How do they differ from those used when a process is created?
5. What is meant by shared memory in interprocess communication?
6. Is it possible to have a deadlock involving only one single process? Give your reasons.
7. What is thrashing?

- \* 8. What is contained in the page table?
9. What is the grouping approach of free space management?
10. What does CLOSE do in file operation?

**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. Write about different types of system calls.
12. Write about the deadlock avoidance.
13. (a) Write about the schedulers.  
(b) Write about the scheduling criteria.
14. Explain the FCFS scheduling.
15. Write about address binding, dynamic loading, dynamic linking and overlays.
16. Describe FIFO as a page-replacement algorithm.
- \* 17. Explain the C-SCAN disk scheduling.
18. Explain the two-level and three-level directory structures.

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