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C14–CM–402/C14–IT–**402**

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BOARD DIPLOMA EXAMINATION, (C–14)

OCT/NOV—2016

DCME—FOURTH 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. What are spooling and buffering?

2. Define system call.

3. Define a process.

4. What is a thread?

5. Define deadlock.

6. What are external fragmentation and internal fragmentation?

7. What is page fault?

8. Define seek time and latency time.

9. What do you know about bit-vector approach of free-space management?

10. List various file operations.

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. What are the services of an operating system? Explain.

12. Explain the structure of process control block with the help of a diagram.

13. Explain about SJF and round-robin scheduling algorithms.

14. What are the necessary conditions for arising deadlocks? Explain.

15. Explain about single partition allocation.

16. Explain about FIFO and LRU page replacement algorithms.

17. Explain FCFS and Scandisk scheduling algorithms.

18. Explain about tree-structured directory system.

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