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C09–CM–**402**

3459

BOARD DIPLOMA EXAMINATION, (C–09)

OCT/NOV—2014

DCM—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) Answer should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Define operating system.

2. Write the services of operating system.

3. Write the benefits of the interprocess communication.

4. What are turnaround time, waiting time and response time?

5. Define deadlock.

6. List three options for breaking an existing deadlock.

7. What is swapping?

8. What is the page-fault frequency strategy?

9. List the methods for managing free disk space.

10. What does OPEN 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 multiprogramming, timesharing, distributed, and real time systems. 2½+2½+2½+2½

12. What is a process? Write about sequential and concurrent processes. 2+4+4

13. What is Gantt chart? Explain how it is used.

14. Explain the process creation and termination.

15. When do page faults occur? Describe the actions taken by the operating system when a page fault occurs.

16. Describe FIFO as a page-replacement algorithm.

17. Explain the SCAN disk scheduling.

18. Explain the advantages and disadvantages of single-, two- and three-level directory structures.

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