C09–IT–**402**

3496

BOARD DIPLOMA EXAMINATION, (C–09)
OCT/NOV—2013
DIT—FOURTH SEMESTER EXAMINATION

OPERATING SYSTEMS

Time : 3 hours] [*Total Marks* : 80

PART—A

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.

2. What is a system call? Give an example.

3. What do you mean by CPU utilization?

4. List two ways we can break the third condition to prevent deadlock.

5. What is round-robin scheduling?

6. What is a system resource allocation graph (SRAG) in general?

7. What is single partition memory allocation?

8. What is the page-fault frequency strategy?

9. What characteristics determine the disk access speed?

10. What is a file?

PART—B

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 multiprocessor systems.

12. Explain the process state diagram.

13. *(a)* Write about semaphore.

     (b) Write about interprocess communication.

14. Explain the threads.

15. Write about page replacement algorithms.

16. Describe demand paging.

17. Explain the advantages and disadvantages of the free disk space management approaches.

18. Explain how files can be protected.

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