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BOARD DIPLOMA EXAMINATION, (C–09)
MARCH/APRIL—2017
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. List different types of system calls.

2. What is meant by spooling and buffering?

3. List three options for breaking an existing deadlock.

4. Define semaphore with examples.

5. What is FCFS algorithm?

6. When is a process terminated?

7. What is single-partition memory allocation?

8. How many frames are needed for each page? Why?

9. Define indexed allocation method.

10. Write briefly how the files are organized in the directories.

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PART—B 10×5=50

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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 the components of operating system.

12. Explain the process state diagram.

13. Write about the deadlock prevention and deadlock avoidance.

14. Explain the SJF scheduling.

15. Describe FIFO page-replacement algorithm.

16. Explain the paging concept in detail.

17. Explain the contiguous disk space allocation.

18. *(a)* Write short notes on the following :

  (i) Sequential access

  (ii) Indexed sequential access

  (iii) Direct access

  (iv) Indexed access

(b) What are the file operations? Explain them. 4+6

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