

C14-CM-402/C14-IT-402

4450

BOARD DIPLOMA EXAMINATION, (C-14) MARCH/APRIL—2017 DCME—FOURTH SEMESTER EXAMINATION

OPERATING SYSTEMS

Time: 3 hours [Total Marks: 80

PART—A

 $3 \times 10 = 30$

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 the types of operating system.
- 2. What are the types of system calls?
- **3.** What is a thread? List its types.
- **4.** List any three scheduling algorithms.
- **5.** Define semaphore.
- **6.** What is meant by overlay?
- **7.** Define swapping.
- 8. What are the disk allocation methods?

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- **9.** Define seek time and latency time.
- **10.** Write the access control bits in file protection.

PART—B

 $10 \times 5 = 50$

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. List and explain various types of operating systems.
- **12.** Explain briefly about process state diagram and process control block.
- **13.** (a) Write the necessary conditions for arising deadlock.
 - (b) Explain the process of recovering from deadlock. 6
- **14.** Explain about SJF and multilevel scheduling algorithms.
- 15. Explain paging and segmentation with neat diagram.
- **16.** (a) Explain about working set model.
 - (b) Explain single-partition allocation method in memory management.
- 17. List and explain any two disk scheduling algorithms.
- 18. List and explain various file access methods.

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