



C16-IT-403

**6497**

**BOARD DIPLOMA EXAMINATION, (C-16)  
MARCH/APRIL—2018  
DIT—FOURTH SEMESTER EXAMINATION  
OPERATING SYSTEMS**

*Time* : 3 hours ]

[ *Total Marks* : 80

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**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. Define buffering. Explain. 1+2=3
2. List the components of operating system.
3. Write a short note on relation between processes.
4. What is a semaphore? Explain. 1+2=3
5. Define a deadlock. Give examples. 1+2=3
6. Write a short note on overlays.
7. Describe the concept of thrashing.
8. Explain SCAN disk scheduling algorithm.
9. Briefly explain the free space management.
10. List the file attributes.

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**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.** (a) What is a system call? Explain with examples. 2+3=5  
(b) List and explain different types of system calls. 2+3=5
- 12.** Describe threads and multi-threading. 3+7=10
- 13.** Explain FCFS CPU scheduling algorithm with example.
- 14.** Explain interprocess communication.
- 15.** State the page replacement algorithm. Describe LRU page replacement algorithm. 2+8=10
- 16.** Describe briefly on demand paging.
- 17.** Describe contiguous allocation method with neat sketch.
- 18.** What is file protection? Explain.

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