



C09-IT-402

3496

**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2013
DIT—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 the functions of OS.
2. What is the concept of multiprogramming?
3. Draw the process-state diagram.
4. Write about PCB.
5. Write a brief note on semaphore.

6. Draw Gantt chart for the following using FCFS algorithm :

<i>Process</i>	<i>Burst time</i>	<i>Arrival time</i>
P_1	3	0
P_2	5	1
P_3	1	3
P_4	10	5

- 7. What is meant by page fault?
- 8. What is swapping?
- 9. Define seek time.
- 10. List various file access methods.

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. Explain various OS components.
- 12. Explain (a) SJF and (b) round-robin algorithms with an example. 5+5=10
- 13. Explain various techniques for deadlock prevention.
- 14. (a) Explain about sequential process. 6
(b) Write two methods used to recover from a deadlock. 4

- 15.** Explain demand paging.
- 16.** Explain any two-page replacement algorithms with example.
- 17.** Explain disk structure.
- 18.** Explain about directory structures.

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