BOARD DIPLOMA EXAMINATION

MID-I
OPERATING SYSTEMS

IV Semester

Time : 1 : 00 Hour   Max. Marks : 20

| PART – A | $4 \times 1 = 4$ |

Note : *Answer all questions and each question carries One marks.*

Answers should be brief and straight to the point and shall not exceed thee simple sendences

1. Define the term operating system.

2. What is spooling?

3. Write various states in process state diagram.

4. List out various scheduling algorithms.

| PART – B | $2 \times 3 = 6$ |

Note : *Answer all questions and each question carries three marks*

The answers should be comprehensive and the criteria forvaluation are the content but not the length of the answer.

5. (a) Distinguish multiprogramming and timesharing operating systems.

    (or)

   (b) Describe various types of operating systems.

6. (a) Give the states of process state diagram and explain it.

    (or)

   (b) Explain the principal of Round Robin scheduling algorithm.

| PART – C | $2 \times 5 = 10$ |

Note : *Answer all questions and each question carries Five marks.*

The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer.

7. (a) How an operating system can control the resources of a system.

    (or)

   (b) Explain how multiprogramming concept will increase the performance of a system.

8. (a) How multi threading concept can reduce the execution time of a program.

    (or)

   (b) Explain with an example priority based scheduling algorithm.

BOARD DIPLOMA EXAMINATION
MID-II
OPERATING SYSTEMS
IV Semester

Time : 1.00 Hour   Max. Marks : 20

PART – A
4 × 1 = 4

Note : Answer all questions and each question carries **One** marks.

Answers should be brief and straight to the point and shall not exceed thee simple sentences

1. Define a deadlock.

2. Give the necessary conditions to occur a dead lock.

3. What is shared memory concept?

4. Explain the term overlays.

PART – B
2 × 3 = 6

Note : Answer all questions and each question carries **three** marks

The answers should be comprehensive and the criteria forvaluation are the content but not the length of the answer.

5. (a) Explain inter process communication.

  (or)

 (b) What are the techniques used to prevent dead lock?

6. (a) What is fragmentation? Explain in detail.

  (or)

 (b) What is segmentation? Explain segmentation with paging.

PART – C
2 × 5 = 10

Note : Answer all questions and each question carries Five marks.

The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer.

7. (a) How Banker's algorithm will avoid dead lock?

  (or)

 (b) Explain how deadlock can be detected and recovered?

8. (a) How logical address can be converted to physical address?

  (or)

 (b) Discuss briefly about simple paging.

BOARD DIPLOMA EXAMINATION
MODEL PAPER (END EXAMINATION)
OPERATING SYSTEMS
IV Semester

Time : 2 Hours

Max. Marks : 40

| PART – A | 8 × 1 = 8 |

Note : *Answer **all** questions and each question carries **One** marks.*

1. Define the term multiprogramming.
2. What are the necessary conditions to occur a deadlock?
3. List out various file operations.
4. Define a process.
5. Give various page replacement algorithms.
6. What is demand paging?
7. What is meant by seek time?
8. Give the principal of FIFO disk scheduling algorithm.

| PART – B | 4 × 3 = 12 |

Note : *Answer **all** questions and each question carries **Three** marks.*

9. (a) Explain FCFS CPU scheduling algorithm with an example.

    (or)

    (b) Explain in brief about paging.

10. (a) Give the various conditions to occur a deadlock.

    (or)

    (b) Give the difference between SCAN and C-SCAN disk scheduling algorithms.

11. (a) Explain how FIFO and LRU page replacement algorithms will work?

    (or)

    (b) Explain the term demand paging.

12. (a) Explain SSTF disk scheduling algorithm.

    (or)

    (b) Explain directory structure organization in detail.

Note : *Answer all questions and each question carries Five marks.*

13. (a) Explain various types of schedulers in detail.

(or)

(b) How paging is applied on segmentation.

14. (a) How virtual memory concept will increase the size of the main memory.

(or)

(b) How files are copied on disk? Explain in detail.

15. (a) Explain with an example LRU and Optimal page replacement algorithm.

(or)

(b) Explain the concept thrashing with a neat sketch.

16. (a) Explain various file access methods.

(or)

(b) Explain various disk scheduling algorithms with examples.