TED (10) – 4071

(REVISION — 2010)

Reg. No.....

Signature .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018

OPERATING SYSTEMS

[*Time* : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. Define loader.
2. What is meant by race condition ?
3. State the function of dispatcher.
4. What is thrashing ?
5. List disk formatting methods. (5×2 = 10)

PART — B

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. State the goals of OS.
2. Differentiate preemptive and non preemptive scheduling with suitable examples.
3. Explain briefly about deadlock prevention.
4. Write different types of threads with examples.
5. List the advantages of segmentation.
6. Explain about the disk structure.
7. Write various file operations. (5×6 = 30)

Marks

PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

UNIT — I

III (a) Write notes on :

(i) Command interpreter systems (ii) Multiprocessor systems. 9

(b) Differentiate between compiler and interpreter. 6

OR

IV (a) What is a real time system ? Write its types. 7

(b) Write the functions of loader. 8

UNIT — II

V (a) Explain any two CPU scheduling algorithms with suitable example. 10

(b) Write briefly about critical section problem. 5

OR

VI (a) Draw the state diagram of a process and explain. 9

(b) Write short notes on (i) Resource allocation graph (ii) Co-operating processes. 6

UNIT — III

VII (a) Present the concept of virtual memory. 6

(b) Describe various page allocation strategies. 9

OR

VIII (a) Present the concept of demand paging with diagram. 9

(b) Describe different types of fragmentation. 6

UNIT — IV

IX (a) Mention any three disk scheduling algorithms. 9

(b) Write basic concepts of file system. 6

OR

X (a) Describe different file allocation methods with suitable diagram. 12

(b) List the applications of I/O interface. 3
