TED (10) – 4071

(REVISION — 2010)

Reg. No..

Signature ....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 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. List any two operating systems.

2. Define a process.

3. What is logical address of a process ?

4. List directory operations.

5. What is cpu bound process ?

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Describe the general functions of operating system.

2. Explain the structure of PCB with a neat diagram.

3. Distinguish between internal and external fragmentation.

4. List the various file operations.

5. Give a brief comparison between compilers and interpreters.

6. Differentiate between pre-emptive and non-preemptive scheduling.

7. Briefly explain the file attributes.

(5×6 = 30)

[304]

[P.T.O.

Marks

PART — C

(Maximum marks : 60)

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

Unit — I

III Briefly explain various types of operating systems.   15

Or

IV Explain the components of operating systems.   15

Unit — II

V Explain various process scheduling algorithms with Gantt chart.   15

Or

VI (a) What are the scheduling criteria of a process ?   8

(b) What is deadlock and explain its causes ?   7

Unit — III

VII (a) Explain paging with paging hardware diagram.   8

(b) Describe segmentation and list the advantage of it over paging.   7

Or

VIII (a) Explain page fault with diagram and the steps to handle page fault.   12

(b) Write a short note on virtual memory.   3

Unit — IV

IX (a) List and explain different directory structures.   12

(b) Briefly explain swap space management.   3

Or

X (a) Explain any three disk scheduling algorithms.   9

(b) List and explain different file allocation methods.   6