



TED (10) – 4071

Reg. No.....

(REVISION — 2010)

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)



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

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