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TED (15) – 4134

(REVISION — 2015)

Reg. No. .....

Signature .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2019

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 the functions of Loader.
2. Define process.
3. Distinguish between logical address and physical address.
4. Define file control block.
5. Define Thin client. (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Write notes on Time sharing systems.
2. Describe the goals of operating system.
3. Explain different types of schedulers.
4. Describe the three address binding methods.
5. Explain critical section problem and the requirements for its solution.
6. Compare segmentation and paging.
7. List and explain different 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 Explain any five operating system components. 15

OR

IV Compare the features of DOS, Unix, Windows and Linux operating systems. 15

UNIT — II

V (a) Explain any three process scheduling algorithms with example. 9

(b) Explain the methods for preventing deadlock. 6

OR

VI (a) Illustrate resource allocation graph with example. 9

(b) Describe the general structure of PCB. 6

UNIT — III

VII (a) Explain contiguous memory allocation scheme. 9

(b) Explain the steps to handle page fault. 6

OR

VIII (a) Describe any three page replacement algorithms with example. 9

(b) Explain paging with paging hardware diagram. 6

UNIT — IV

IX (a) Explain about different directory structures. 9

(b) Explain about virtual box. 6

OR

X (a) Discuss about different allocation methods in detail. 9

(b) Explain different types of hardware virtualization. 6