TED (15) – 6043

(REVISION — 2015)

Reg. No...

Signature ....

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

COMPUTER HARDWARE AND NETWORKING

[*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. Write the function of Power Good signal in ATX SMPS.

2. Name the pins of USB connector.

3. Define the term Motherboard form factor.

4. What is the need of a file system in a computer ?

5. State the role of a hub in computer network.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Describe the working principle of laser printer.

2. Explain DRAM and SRAM.

3. How cache memory improves processor's speed and state the different types of cache memory.

4. Describe boot sector in FAT file system.

5. State the terms track, sector & cluster.

6. Describe LAN and WAN.

7. Explain TCP/IP protocol architecture.

(5×6 = 30)

[P.T.O.

PART — C

Marks

(Maximum marks : 60)

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

UNIT — I

III (a) Explain the working of display adapter with suitable diagram. 9

(b) Explain the working optical mouse. 6

OR

IV (a) Explain the working of SMPS with necessary diagram. 10

(b) Enumerate the features of AGP bus architecture. 5

UNIT — II

V (a) Describe the functions of graphics card, NIC and sound expansion card. 9

(b) Explain the memory modules SIMM and DIMM. 6

OR

VI (a) Describe the role of BIOS in a Computer. 7

(b) Briefly explain the need and functions of chipset. 8

UNIT — III

VII (a) With necessary diagram explain the constructional details of hard disk. 9

(b) Explain any two ESD protection devices. 6

OR

VIII (a) List the need for hard disk formatting and explain two types of formatting. 9

(b) Compare CD and DVD. 6

UNIT — IV

IX (a) List the layers of ISO-OSI reference model & describe functions of each layer. 9

(b) Explain Virtual Private Network. 6

OR

X (a) Describe different network topologies. 8

(b) Explain the architecture of Wireless LAN. 7