

TED (15/19) - 6043
(REVISION-2015/19)

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Reg.No.....
Signature.....

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, APRIL - 2024**

COMPUTER HARDWARE AND NETWORKING

(Maximum Marks:100)

(Time: 3 Hours)

PART - A
(Maximum Mark : 10)

Marks

- I. Answer **all** the questions in one or two sentences. Each question carries 2 marks.
1. Draw the pin details of 5 pin DIN keyboard connector.
 2. State the significance of firmware.
 3. Give examples of motherboard form factors.
 4. Define the term 'latency time' in accessing data from a hard disk.
 5. List four types of topologies used in computer networking. (5 x 2 = 10)

PART - B
(Maximum Mark: 30)

- II Answer **any five** questions from the following. Each question carries 6 marks.
1. List the output voltages of an ATX SMPS. Mention the wire colour code of each.
 2. Draw the pin details of a centronics type interface.
 3. State the need for memory refreshing in RAM.
 4. Define track, sector and cylinder related to hard disk structure.
 5. Mention the different types of electrostatic discharge.
 6. Write note on infra red wire less LAN.
 7. Distinguish between LAN and MAN. (5 x 6 = 30)

P.T.O

PART – C

(Maximum Mark: 60)

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

UNIT - I

- III (a) Describe the operation of keyboard controller of a computer. (8)
(b) Explain with diagram the basic principle of operation of an LCD monitor. (7)

OR

- IV (a) Explain the working of a laser printer with necessary diagram. (8)
(b) Draw the functional diagram of a flatbed scanner and explain its operation. (7)

UNIT – II

- V (a) Explain the various types of cache memory. (8)
(b) Explain the function of BIOS. (7)

OR

- VI (a) Explain the various memory modules used in a computer. (8)
(b) Write note on the functions of north bridge. (7)

UNIT – III

- VII (a) Explain the method of optical recording. (8)
(b) Give examples of linux files systems. Explain any two. (7)

OR

- VIII (a) Explain the methods to prevent electrostatic discharge. (8)
(b) State the need for formatting and explain low and high level formatting. (7)

UNIT – IV

- IX (a) Explain seven layer OSI reference model of a computer network. (8)
(b) Describe the concept of wireless access point. (7)

OR

- X (a) Write a brief note on different types of guided media used for networking. (8)
(b) Write note on :
i) narrow band microwave LAN ii) spread spectrum LAN (7)

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