# DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, APRIL - 2025

## COMPUTER HARDWARE AND NETWORKING

[Maximum Marks: **100**]                                                        [Time: **3** Hours]

### PART-A
[Maximum Marks: **10**]

I.       (Answer *all* questions in one or two sentences.  Each question carries *2* marks)

1. List any two advantages of SMPS.

2. List any two display adapters.

3. List any four I/O interface cards used in Computers.

4. What is ESD?

5. What is the use of HUB in networking ?                                      (5 x 2 = 10)

### PART-B
[Maximum Marks: **30**]

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

1. Draw the block diagram of VGA monitor.

2. Write notes on USB interface.

3. Describe memory refreshing.

4. Draw 20 pin power connector of ATX SMPS and mark all the pins and voltages.

5. Explain optical recording techniques.

6. Explain components of computer networking.

7. Explain different network topologies.                                      (5 x 6 = 30)

### PART-C
[Maximum Marks: **60**]
(Answer *one* full question from each Unit.  Each full question carries **15** marks)

#### UNIT – I
III.    a. Explain  the working  principle  of an ATX SMPS with the help of block diagram.      (8)

b. Explain  the working  principle  of Inkjet printers.                                      (7)

**OR**

IV.    a. Explain  AGP  and PCI.                                      (8)

b. Explain  the working  principle  of optical mouse.                                      (7)

## UNIT – II

V.    a. Write notes on CMOS, BIOS and POST.    (8)

       b. Describe different types of RAM used in computers.    (7)

### OR

VI.    a. Explain different types of memory modules used in computers.    (8)

       b. Write notes on Network Interface card, Graphics card and sound card.    (7)

## UNIT- III

VII.    a. Define terms Track, Sector and Cluster of Hard disk.    (8)

       b. Compare CD and DVD.    (7)

### OR

VIII.    a. Explain Low level and High level formating of Hard disks.    (8)

       b. Explain different antistatic methods to prevent ESD.    (7)

## UNIT - IV

IX.    a. Explain ISO-OSI reference model.    (10)

       b. Write notes on Switch, Router and Bridge.    (5)

### OR

X.    a. Explain TCP/IP architecture used in computer networking.    (8)

       b. Write notes on LAN, WAN and MAN.    (7)

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