

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2022**

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 the various voltage outputs of an ATX SMPS.
2. Differentiate impact and non impact printers. Give example.
3. State the need for memory refreshing.
4. What is meant by electrostatic discharge (ESD)?
5. What is the function of a hub?

(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 a VGA monitor.
2. What is the need for cache memory? Explain its classification?
3. Explain PROM, EPROM and EEPROM.
4. Define seek time and latency in a hard disk.
5. Compare CD, DVD and Blue ray disks.
6. Differentiate LAN, MAN and WAN.
7. What is a Virtual Private Network?

(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) Draw the block diagram of an SMPS, with waveforms at each stage. (7)
- (b) Explain the working of a flat bed scanner. (8)

OR

- IV. (a) Explain key encoding in a matrix keyboard. (8)
(b) Draw the pin details of DIN and mini DIN keyboard connectors. (7)

UNIT – II

- V. (a) Explain the mechanism of POST. (7)
(b) Describe chipset in a motherboard. (8)

OR

- VI. (a) Explain SRAM and DRAM with the help of a diagram. (8)
(b) Explain expansion cards used in a computer. Give function of any two. (7)

UNIT- III

- VII. (a) Explain the structure of a hard disk. (7)
(b) Describe the various types of ESD. (8)

OR

- VIII. (a) Explain FAT32 and NTFS file systems. (8)
(b) Draw the diagram showing optical recording technique. (7)

UNIT - IV

- IX. (a) Draw and explain ISO OSI 7 layer reference model of a network. (9)
(b) Write a brief note on infrared LAN and narrowband microwave LAN. (6)

OR

- X. (a) List the topologies used in computer networking. Draw any four. (9)
(b) Briefly explain Digital Subscriber Line (DSL). (6)
