DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018

COMPUTER HARDWARE AND NETWORKING

[*Time* : 3 hours

(Maximum marks : 100)

Marks

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 mother board form factors.

3. Name any two memory modules.

4. Define the term seek time in hard disk.

5. List any four network topologies.   (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. List any three display adaptors. Explain any one.

2. Explain the working principle of optical mouse.

3. Describe the need for cash memory and its classifications.

4. Explain low level and high level formatting.

5. Define the term ESD and describe the causes of ESD.

6. Explain the operations of hub and switch.

7. Briefly explain various guided transmission medias.   (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 (a) Explain the block diagram of a VGA monitor.   7

    (b) Briefly explain ATX SMPS with relevant block diagram.   8

OR

IV (a) Explain the working principle of a laser printer.   8

    (b) Explain the working of a flat bed scanner.   7

UNIT — II

V (a) Explain different types of RAMs used in computer.   7

   (b) Explain the POST and BIOS mechanism.   8

OR

VI (a) Briefly explain different types of ROMs used in computer.   9

    (b) Describe SIMM, DIMM and RIMM.   6

UNIT — III

VII (a) Explain the construction of a hard disk.   8

    (b) Explain the optical recording technique.   7

OR

VIII (a) Explain different types of ESD.   8

     (b) Explain NTFS and HPFS.   7

UNIT — IV

IX (a) Explain ISO - OSI 7 layer reference model with relevant diagram.   8

    (b) Explain wireless LAN architecture.   7

OR

X (a) Explain infrared LAN and spread spectrum LAN.   8

   (b) Explain the operation of wireless access point, wireless node and wifi.   7