

# 17428

11819

**3 Hours / 100 Marks**

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data, if necessary.
- (5) Use of Non-programmable Electronic Pocket Calculator is permissible.
- (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

1. a) Attempt any SIX of the following:

12

- (i) State any two motherboard selection criteria.
- (ii) What is track and sector of H.D.D.?
- (iii) Write any four advantages of CRT display over LCD display.
- (iv) Give classification of printer with example.
- (v) Give advantages of ink jet printer over dot matrix printer.  
(any two)
- (vi) Define:
  - (1) Black out
  - (2) Spikes
- (vii) List any four fire wire features.
- (viii) Give four features of USB.

P.T.O.

**b) Attempt any TWO of the following:****8**

- (i) What is cache memory? What is L1, L2, L3 cache?
- (ii) State any four difference between interlaced and non interlaced monitor.
- (iii) Define the following terms related to CRT monitor.
  - (1) Frame rate
  - (2) Video band - width
  - (3) Resolution
  - (4) Dot pitch

**2. Attempt any FOUR of the following:****16**

- a) State any four features of PCI - X.
- b) Explain the construction of CD-ROM drive with block diagram.
- c) What is partitioning of hard disk? How it is done? Give need of partitioning.
- d) Describe use of jumper selections. (any four)
- e) Explain working of plasma display with diagram.
- f) List any four specification of Dot matrix printer.

**3. Attempt any FOUR of the following:****16**

- a) Draw and explain architecture of intel chipset 915G.
- b) Explain working of touch screen display with diagram.
- c) Explain in brief SCSI drive configuration.
- d) Explain the working of logic analyser for troubleshooting of PC with a neat block diagram.
- e) Which different testing are performed by diagnostic software?
- f) State any four application of BGA work station.

- 4. Attempt any FOUR of the following:** **16**
- a) Write the working principle of mechanical key switch with neat diagram.
  - b) Draw block diagram of internal modem and state the function of various blocks.
  - c) Give the signal voltages for following colors of ATX connectors: Red, Black, Orange and Purple.
  - d) With neat block diagram explain working of Smmps.
  - e) Draw the block diagram of RS232 connector and give the function of each signal.
  - f) Draw the diagram of centronics interface and explain function of any four signals.
- 5. Attempt any TWO of the following:** **16**
- a) Describe real and protected mode of processor in detail.
  - b) Draw the block diagram of North bridge and South bridge architecture and describe the various blocks.
  - c) Describe different stages of the process of printing a document on laser printer with suitable diagram.
- 6. Attempt any TWO of the following:** **16**
- a) Explain construction and recording of DVD with diagram.
  - b) What is FAT? Explain different type of FAT.
  - c) Explain following protection device.
    - (i) Circuit breaker
    - (ii) Surge - suppressor
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