

# 17428

**11920**

**3 Hours / 100 Marks**

Seat No.

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

**Marks**

- 1. Attempt any TEN of the following: 20**
- a) Define the terms Internal cache and External cache.
  - b) List any four firewire features.
  - c) Define
    - (i) Blackout
    - (ii) Surge.
  - d) Write any two features of FAT 32, NTFS, File system.
  - e) What is meant by Interlaced and Non-interlaced monitor.
  - f) State four features of Bluetooth.
  - g) Define terms related to hard disk.
    - (i) Cluster
    - (ii) Landing Zone.

P.T.O.

- h) List any four features of SD-RAM
- i) Write any four advantages of CRT display over LCD display.
- j) Define the terms TWAIN and OCR with reference to scanner.
- k) Give disadvantages of Ink Jet printer.
- l) Give any four features of SCSI.
- m) State any four printer characteristics.
- n) Give four specifications of Blue Ray disk.

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

- a) Describe the construction and working of plasma display.
- b) Draw the block diagram of a video accelerator card and explain.
- c) Compare DDR 2 and DDR 3 (Any four points)

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

- a) State any four features of P67 chipset.
- b) Explain the construction of CD-ROM drive with block diagram.
- c) In a centronics interface, explain use of signals.
  - (i) Strobe.
  - (ii) Acknowledge
  - (iii) Autofeedit
  - (iv) Busy
- d) List four recording techniques used in storage devices and Explain any one.
- e) Describe pre compensation and zone recording.
- f) Describe the working of Optical Mouse? And list its advantages.
- g) Describe SMPS with neat block diagram.

- 4. Attempt any TWO of the following:** **16**
- a) Explain the working of Dot Matrix Printer with neat diagram.
  - b) With neat diagram explain the working principle of flat bed scanner.
  - c) State any eight mother board selection criterion.
- 5. Attempt any FOUR of the following:** **16**
- a) Give the test sequence of POST.
  - b) Describe logic Analyzer and state its two advantages.
  - c) Explain the term troubleshooting and name the equipments used for troubleshooting.
  - d) What is cache hit and cache miss?  
Describe L1, L2 and L3 cache.
  - e) State four advantages of UPS over normal power supply.
  - f) Give the signal voltage for following colours of ATX connectors Red, Black, Orange and Purple.
- 6. Attempt any FOUR of the following:** **16**
- a) Describe use of jumper selection for HDD?
  - b) State four features of USB.
  - c) What is hyper threading technology? What is its requirement?
  - d) Describe Frequency Modulation (FM) method of recording with suitable example.
  - e) Explain the sequence of events in RS-232 communication with signals.
  - f) Describe the following terms related to hard disk.
    - (i) MBR
    - (ii) Sector
    - (iii) Cylinder
    - (iv) Track.
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