

17428

21415

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. a) **Attempt any SIX of the following :** **12**
- (i) Write any two modes of operation of CPU. Also mention one effect of each.
- (ii) Write any four recording techniques.
- (iii) Write two advantages and two disadvantages of LCD monitor.
- (iv) Write four types of key switches used in keyboard.
- (v) Write two advantages and two disadvantages of Opto-mechanical mouse.
- (vi) State the meaning of black out and brown out problem in power supply.
- (vii) Write any four important features of USB port.
- (viii) Write two advantages and two disadvantages of Bluetooth.

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

- (i) Explain the terms extended memory and expanded memory with suitable example.
- (ii) Explain the following
 - 1) Interlaced scanning
 - 2) Non interlaced scanning
- (iii) Draw functional block diagram of LCD monitor.

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

- a) Write any important function of BIOS.
- b) Explain the following with the help of neat diagram :
 - (i) Track
 - (ii) Sector
 - (iii) Cylinder
 - (iv) Cluster
- c) Draw and explain block diagram of CD drive.
- d) Distinguish between FAT-32 and NTFS.
- e) Write any four important characteristics of colour CRT monitor.
- f) Draw and explain the block diagram of external modem.

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Marks

- 3. Attempt any FOUR of the following :** **16**
- a) Describe the CMOS setup. State any two importances of CMOS setup.
 - b) State the difference between touch screen monitor and normal LCD monitor.
 - c) Draw and explain the RS232.
 - d) What is POST ? Write applications of POST in trouble-shooting.
 - e) Explain active and passive maintenance with suitable example.
 - f) State and interpret the meaning of beep codes.
- 4. Attempt any FOUR of the following :** **16**
- a) Draw and explain the Block diagram flat bed scanner.
 - b) Write any four important characteristics of Dot Matrix Printers.
 - c) Draw the pin out diagram of ATX connector.
 - d) What are the symptoms of power supply problem ?
 - e) Draw and explain centronic interface diagram.
 - f) Write any four firewire features.
- 5. Attempt any TWO of the following :** **16**
- a) Write two important features of the following :
 - (i) SDRAM
 - (ii) DDR
 - (iii) Cache
 - (iv) DDR2
 - b) Draw and explain the north and south bridge chipset architecture.
 - c) Draw and explain the Laser printer block diagram and mention any two important specifications.

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Marks**16****6. Attempt any TWO of the following :**

- a) Write two features of each of the following :
- (i) Jumper
 - (ii) Blue Ray Disc
 - (iii) SCSI
 - (iv) IDE
- b) Mention differences between following :
- (i) IDE and SCSI
 - (ii) IDE and SATA
- c) Draw and explain the functional block diagram of UPS.
