

17428

15116

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) 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) Define the terms related to hard disk:
- 1) Cylinder
 - 2) Cluster
- (ii) Write any two points of difference between XT type and AT type motherboard.
- (iii) What is a Bluetooth? Give its function.
- (iv) List any two types of mouse with their features.
- (v) Draw the block diagram of linear power supply.
- (vi) List any four features of firewire.
- (vii) List any four types of key switches of keyboard.
- (viii) What are the different factors to be considered while selecting the power supply?

P.T.O.

- b) **Attempt any TWO of the following:** **8**
- (i) Explain the SCSI drive configuration.
 - (ii) Define the following terms related to power problems:
 - 1) Blackouts
 - 2) Brownouts
 - 3) Surges
 - 4) Spikes
 - (iii) List with meaning any eight features of USB.
2. **Attempt any FOUR of the following:** **16**
- a) Draw and explain the block diagram of SMPS.
 - b) How RLL encoding is commonly used encoding scheme for hard disk storage? Also mention its encoder/decoder table.
 - c) List with meaning any four specifications of Dot Matrix printer.
 - d) List any four points of comparison between online UPS and offline UPS.
 - e) Draw the block diagram of optical mouse. Also list any four advantages of optical mouse.
 - f) How perpendicular recording technology is used for recording on hard disk?
3. **Attempt any FOUR of the following:** **16**
- a) List any four advantages and disadvantages of LCD monitor.
 - b) Why BIOS is used? List any three functions of BIOS.
 - c) Explain the working principle of plasma display technology.
 - d) Draw and explain block diagram of an internal modem.
 - e) Explain the concept of zone bit recording.
 - f) Explain the pin signal description of RS 232.

- 4. Attempt any FOUR of the following:** **16**
- a) Explain the concept of MBR.
 - b) Explain the purpose of logic probe and logic analyzer for maintenance.
 - c) Write any four points for comparing high level and low level formatting.
 - d) Give any four important features each of PCI and AGP buses.
 - e) Draw and label block diagram of CRT monitor.
 - f) List any four points of difference between Internal Cache and External Cache.
- 5. Attempt any TWO of the following:** **16**
- a) Explain with diagram, the logical memory organisation.
 - b) Draw and explain block diagram of video accelerator card.
 - c) What do you understand by preventive maintenance? List different steps to be followed to carry out preventive maintenance.
- 6. Attempt any TWO of the following:** **16**
- a) Explain what do you understand by:
 - (i) Extended memory
 - (ii) Expanded memory
 - b) Explain the construction of DVD. How its recording is performed?
 - c) Explain with block diagram the working of flat - bed scanner.
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