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11718

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) 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 four features of PCI bus.
- (ii) What is formatting? List types of formatting.
- (iii) Write any two advantages of CRT display over LCD display.
- (iv) Define following terms with reference to scanner.
- 1) Resolution
- 2) Interpolation
- (v) List various types of keyboard switches.
- (vi) Define following terms related to power supply -
- 1) Line Regulation
- 2) Load Regulation

P.T.O.

(vii) Give any four features of SCSI - 1.

(viii) Give any four features of USB.

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

(i) What is need of cache memory? Describe in brief internal and external cache.

(ii) Explain following:

1) Interlaced scanning

2) Non-interlaced scanning.

(iii) Draw the block diagram of Video Accelerated card and explain its working.

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

a) State any four features of H67 or P67 chipset.

b) State eight features of Blue-ray.

c) Describe and write precompensation. State its use.

d) Describe following terms related to hard disk:

MBR, sector, cylinder, track

e) Differentiate between CRT and LCD display (any four points)

f) Draw the block diagram of flatbed scanner and state the function of each block.

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

a) Name the different modes of operation of the processor and state their features.

b) Draw and explain functional block diagram of LCD monitor.

c) Draw and explain centronic interface with diagram.

d) State any four applications of BGA workstation.

e) Name two hardware tools and two software tools used for troubleshooting of PC.

f) Give the preventive maintenance for hard disk drive and keyboard.

- 4. Attempt any FOUR of the following:** **16**
- a) Explain working of optical mouse.
 - b) What is modem? Explain working of internal modem with diagram.
 - c) List various protection devices for power supply. Explain any one of them.
 - d) What are the symptoms of power supply problem.
 - e) Draw the pin description of RS232 interface and give the function of each signal.
 - f) Write any four advantages of bluetooth.
- 5. Attempt any TWO of the following:** **16**
- a) List any eight motherboard selection criteria.
 - b) Draw the block diagram of North bridge/South bridge architecture and explain.
 - c) Explain working of Laser printer with diagram and mention any two specification.
- 6. Attempt any TWO of the following:** **16**
- a) Describe FM, MFM, and RLL method of recording and explain how MFM recording technique will be applied for the data stream 10110111.
 - b) With suitable block diagram, describe the construction of CD-ROM drive and explain how recording is done.
 - c) With block diagram describe the working of SMPS.
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