

17428

15162

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) State any two mother board selection criteria.
- (ii) What is track and sector of H.D.D.?
- (iii) What is meant by interlaced and non-interlaced monitor?
- (iv) Define the terms TWAIN and OCR with reference to scanner.
- (v) Give classification of printer with examples.
- (vi) Define:
- (1) Blackout
- (2) Surge
- (vii) State four features of bluetooth.
- (viii) Give any four features of SCSI-3.

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- b) **Attempt any TWO of the following:** **8**
- (i) Draw block diagram of north bridge / south bridge architecture and explain.
 - (ii) Describe passive matrix and active matrix with suitable diagrams.
 - (iii) Draw the block diagram of a video accelerator card and explain.
2. **Attempt any FOUR of the following:** **16**
- a) Explain four features of PCI bus.
 - b) List four recording techniques used in storage devices and explain any one.
 - c) What is partitioning of hard disk? How it is done? Give need of partitioning.
 - d) Describe use of jumper selection. (any four)
 - e) Write advantage and disadvantage of LCD monitor.
 - f) Draw block diagram of internal modem and state the function of various blocks.
3. **Attempt any FOUR of the following:** **16**
- a) State different function of BIOS.
 - b) Explain working and construction of plasma display technology.
 - c) Explain in brief SCSI drive configuration.
 - d) Explain the working of logic analyzer for troubleshooting of PC with a neat block diagram.
 - e) Give the test sequence of POST.
 - f) Which different testing are performed by diagnostic software?

- 4. Attempt any FOUR of the following:** **16**
- a) With neat diagram explain the working of optical mouse.
 - b) Explain in brief working of laser printer with neat diagram.
 - c) Write difference between on-line UPS and off-line UPS.
 - d) Draw pinout diagram and signal description of ATX connector.
 - e) Write features of fire wire. (any four)
 - f) Draw the diagram of centronics interface and explain function of any four signals.
- 5. Attempt any TWO of the following:** **16**
- a) What is need of cache memory? Describe the types of cache memory.
 - b) Describe real and protected mode of processor in detail.
 - c) Name the different types of key-switches in keyboard. Explain the principle of working of opto-electronic switch.
- 6. Attempt any TWO of the following:** **16**
- a) With suitable block diagram, describe construction of CDROM drive and explain the recording mechanism.
 - b) Give the eight specifications of blue-ray disk with typical value.
 - c) With suitable block diagram describe the working of SMPS.
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