

22394

23124

3 Hours / 70 Marks

Seat No.

--	--	--	--	--	--	--	--

- 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 FIVE of the following :

10

- (a) State different components of motherboards.
- (b) State solution for overheat problem & blue screen problem.
- (c) Describe any 2 PSU connectors.
- (d) Define GSM system.
- (e) Define performance tuning.
- (f) Describe the working principle of optical mouse.
- (g) List any two features of nmon tool.

2. Attempt any FOUR of the following :

12

- (a) State selection criteria for motherboard.
- (b) Write steps to configure SSD into laptop.



- (c) Describe hotspot and sensors in smartphone.
- (d) Explain Input devices of the computer system.
- (e) Define Display quality and speaker output aspects related to benchmark testing of smartphone performance.

3. Attempt any FOUR of the following :

12

- (a) Describe expansion slots
 - (i) PCI and
 - (ii) PCI express
- (b) State the use of mini_molex connector and explain its pins.
- (c) Compare laptops on following points :
 - (i) Display Resolution
 - (ii) RAM
 - (iii) Bluetooth version
- (d) Draw neat and labelled block diagram of LED monitor.
- (e) What is disk defragmentation ? Write steps to defragmentation of disk.

4. Attempt any THREE of the following :

12

- (a) Draw neat motherboard layout with its functional units for Tablet.
- (b) Distinguish between power supply in laptop & power supply in smartphones.
- (c) Draw neat diagram of smartphone and describe significance of sensors used in smartphone.
- (d) Describe working principle of Handheld, Flatbed, Sheetfed, Portable scanners.
- (e) Explain the terms :
 - (i) Response time for system.
 - (ii) Mean time between failure.

5. Attempt any THREE of the following :**12**

- (a) State the significance of BIOS and write step-by-step procedure to setup BIOS for windows 10.
- (b) Describe major pins P1 & P2 of PSU.
- (c) System is having sufficient quantity of area to satisfy memory request but these areas are non-contiguous. Write steps to troubleshoot such fragmentation.
- (d) Describe troubleshoot of printer on (i) Printer Driver problem (ii) Printhead clogging.
- (e) User A wants to create three sections in his computer hard disk. Write step-by-step procedure to create such sections in hard disk with respect of Microsoft Windows operating system.

6. Attempt any TWO of the following :**12**

- (a) Describe procedure to create storage device as boot media for operating system installation. Also explain storage device configuration for such installation.
 - (b) Write solutions for following issues in smartphones :
 - (i) Cracked screen
 - (ii) Overheating of device
 - (iii) Charging port failure
 - (c) Describe the types of monitors with its working principles.
-

