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.

1. (A) Attempt any THREE : 12
   (a) Define the terms with reference to LCD Monitor:
      (i) Resolution
      (ii) Refresh Rate
      (iii) Response time
      (iv) Dot pitch
   (b) State four preventive maintenance measures to be taken for maintenance of scanner.
   (c) State four features of DDR2 and DDR3 RAM.
   (d) State the functions of the following layers of OSI Reference Model.
      (i) Data link layer
      (ii) Transport layer
      (iii) Network layer
      (iv) Application layer
(B) Attempt any ONE : 
(a) State the step-by-step procedure for installation of TCP/IP Protocol and configuring the same.
(b) State the function of :
   (i) Hubs
   (ii) Switches
   (iii) Routers
   (iv) Bridges
   (v) Gateways
   (vi) Firewalls

2. Attempt any FOUR of the following : 
(a) Draw the block diagram of a flatbed scanner and state the function of each block.
(b) State two problems related to laser printer with their symptoms. State preventive maintenance measures for Laser printer.
(c) What is POST ? Explain. What is the meaning of the following BIOS beeps in IBM PCs.
   (i) 1 long beep and 1 short beep.
   (ii) 1 short beep.
(d) Describe IP Address classes with suitable examples.
(e) Compare TCP and UDP. (4 points)

3. Attempt any TWO of the following : 
(a) Draw a neat sketch and describe the construction of CDROM. Describe the recording mechanism in CD-ROM.
(b) State the pin description of various pins in RS 232 serial interface.
(c) With the help of a neat sketch describe the construction of fibre optic cable and state four advantages over electrical cables.