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 three: (4×3=12)  
   a) List four features of ISA and PCI Express.  
   b) Write preventive maintenance procedure of laser printer.  
   c) Differentiate between CRT and LCD Display (four points).  

B) Attempt any one: (6×1=6)  
   a) Draw the TCP/IP Reference Model and state the function of various layers.  
   b) List classification of network on basis of geographical area. State the benefits of networks.

2. Attempt any four: (4×4=16)  
   a) List four characteristics of display and define them.  
   b) Write preventive maintenance procedure of (i) Keyboard (ii) Hard disk.  
   c) List any two problem of PC with its troubleshooting.  
   d) Define IP Addressing. List IP Address classes with their range.  
   e) Name the different TCP/IP Protocols. Explain the working of FTP.

3. Attempt any two: (8×2=16)  
   a) What is cache memory? What are its types? With the help of neat diagram, explain the working principle of cache.  
   b) Draw block diagram of SMPS and state the function of the blocks.  
   c) List networking devices. State the function of any four devices.