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.

1. a) Attempt any THREE of the following: 12
   (i) Explain architecture of Intel chip set 945G with diagram.
   (ii) With the help of diagram explain the working of:
        1) On-line UPS
        2) Off-line UPS
   (iii) Explain the preventive maintenance of:
        1) Mouse
        2) CD ROM drive
   (iv) Draw the 20 Pin ATX power connection with color code and describe the signals.

b) Attempt any ONE of the following: 6
   (i) Describe peer to peer and client server networks.
   (ii) Compare between OSI and TCP/IP reference model.
        (any 6 points)
2. Attempt any **FOUR** of the following:  
   a) Explain BIOS with its any three functions.
   b) Explain construction of DVD.
   c) Describe data encapsulation.
   d) Explain Active matrix LCD with diagram.
   e) List any four advantages of optical mouse.

3. Attempt any **TWO** of the following:  
   a) What is network topology? Explain star and bus topology with advantages.
   b) Explain scanner printer, mouse and keyboard related problems along with their solution (any two each)
   c) Explain following terms:
      (i) Subnet masking
      (ii) ARP
      (iii) FTP
      (iv) TCP