Scheme – G

Sample Test Paper -I

Course Name: Electronics Engineering Group

Course Code : ET/EN/EX/EJ/IE/IS/IC/DE/EU/MU/IU/ED/EI

17533

Semester   : Fifth (ET/EN/EX/EJ/IE/IS/IC/DE/EU/MU) Sixth (IU/ED/EI)

Subject Title : Computer Hardware & Networking

Marks   : 25   Time: 1 hour

Instructions:

1. All questions are compulsory

2. Illustrate your answers with neat sketches wherever necessary

3. Figures to the right indicate full marks

4. Assume suitable data if necessary

5. Preferably, write the answers in sequential order

Q1. Answer any THREE of the following: **(9 Marks)**
- a) List any six features of PCI-X with its specification.
- b) Define three characteristics of LCD monitor.
- c) In an institute, 10 computers are to be interconnected with high security. What type of architecture is to be used? Justify your answer. (any 2 points)
- d) State any three functions of Router.

Q2. Answer any TWO of the following   **(8 Marks)**
- a) What is cache memory? List the types. Describe how the data is accessed using cache memory concept.
- b) Draw the labeled diagram of Active and Passive Matrix. State the working of each cell in both.
- c)   What is hybrid topology? Draw one example. State its benefits (any two)

Q3. Answer any ONE of the following   **(8 Marks)**
- a) Draw the labeled block diagram of DVD drive and describe stepwise procedure for recording data on a DVD.
- b)   Draw the labeled architecture of Intel 945G. Describe the function of each block.

Scheme – G

Sample Test Paper -II

Course Name: Electronics Engineering Group

Course Code : ET/EN/EX/EJ/IE/IS/IC/DE/EU/IU/ED/EI

17533

Semester   : Fifth (ET/EN/EX/EJ/IE/IS/IC/DE/EU/MU) Sixth (IU/ED/EI)

Subject Title : Computer Hardware & Networking

Marks   : 25   **Time: 1 hour**

Instructions:

1. All questions are compulsory

2. Illustrate your answers with neat sketches wherever necessary

3. Figures to the right indicate full marks

4. Assume suitable data if necessary

5. Preferably, write the answers in sequential order

Q1. Answer any THREE of the following: **(9 Marks)**
   a) List the different types of UPS. Draw the block diagram of an UPS which
       supplies power to a computer continuously without switching.
   b) What is POST? State any two tests performed when post is executed.
   c)   Define protocol. Give the meaning and function for the following protocols
           i.   ICMP   ii. ARP
   d)   Identify the class of following IPV4 addresses.
           i.   37.4.5.1
           ii. 178.3.2.8
           iii. 223.4.5.2

Q2. Answer any TWO of the following   **(8 Marks)**
   a)   Describe step by step installation procedure of flatbed scanner.
   b)   State the principle and functions (any three) of
               i.   Gateways   ii. Firewalls
   c) Draw the TCP/IP reference model. Describe the functions of each layer.

Q3. Answer any ONE of the following   **(8 Marks)**
   a) Troubleshoot the following problems, (Four steps)
           i. Disk boot failure   ii. Keyboard Error
   b) Draw the labeled OSI reference model. State the function of each layer when data
       is sent and received from one computer to another in a stepwise procedure.

Scheme – G

Sample Question Paper

Course Name: Electronics Engineering Group

Course Code : ET/EN/EX/EJ/IE/IS/IC/DE/EU/IU/ED/EI

17533

Semester   : Fifth (ET/EN/EX/EJ/IE/IS/IC/DE/EU/MU) Sixth (IU/ED/EI)

Subject Title : Computer Hardware & Networking

Marks   : 50   **Time: 2 hours**

Instructions:

1. All questions are compulsory

2. Illustrate your answers with neat sketches wherever necessary

3. Figures to the right indicate full marks

4. Assume suitable data if necessary

5. Preferably, write the answers in sequential order

Q1. a) Answer any THREE of the following: (12 Marks)
   a) List different types of DDR. Give its specifications. (any 2 points for each)
   b) Draw a labeled block diagram of Laser printer.
   c) What is BIOS? Describe any 3 three functions performed by BIOS.
   d) State the meaning and functions of following protocols
        i. FTP   ii. IP   iii. ARP

Q1. b) Answer any ONE of the following: (06 Marks)
   a)   List different types of cables used in computer networks. It is required to connect two networks working at high speed. Which cable will you use? Draw the construction diagram of the same.
   b)   Draw the OSI reference model indicating its horizontal communication. State the function of each layer.

Q2. Answer any FOUR of the following: (16 Marks)
   a)   Describe the working of flatbed scanner with neat labeled block diagram.
   b)   Troubleshoot the following symptom step by step. "**System won't boot**"
   c)   State any two printer related problems and any 2 causes for each problem. Give solution.
   d)   Give the classification of IP addresses. Give the range of addresses and default subnet mask for any three Classes.
   e)   Compare TCP and UDP with respect to
        i. Reliability

ii. Speed

iii. Acknowledgement

iv. Security

Q3. Answer any TWO of the following: (16 Marks)

a) Draw a neat labeled block diagram of Dot Matrix Printer. Describe the function of each block. State two limitations.

b) State any two functions of the following devices. Also state the layer at which it works. i. Hub ii. Router iii. Switch

c) What is network topology? State different types. Name the topology given bellow. State any two benefits and any two limitations when this topology is implemented.