22414

Seat No.

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) 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) Define bit rate and baud rate.

b) List different characteristics of data communication system. (Any two)

c) Define guided and unguided communication media.

d) Classify mobile generations.

e) Compare LRC and CRC (Any two points each.)

f) State different types of Network topologies.

g) List classes of IP addressing with their IP address range.

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

a) Differentiate between synchronous and asynchronous communication. (Any four points.)

b) Draw and explain fiber optic cable.

c) Explain wireless LAN 802.17 architecture.

d) State the functions of any two layers of OSI model.

Marks

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

a) State the two advantages and two disadvantages of unguided media.

b) Draw and explain block diagram of communication system.

c) Describe different connecting devices used in computer network.

d) Draw and explain OSI reference model.

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

a) Describe multiplexing techniques.

b) Compare IPV_4 and IPV_6. (Any four points.)

c) Explain circuit switching network with neat sketch.

d) Draw and explain TCP/IP model.

e) Explain various IEEE communication standards.

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

a) Explain simplex, half duplex and full duplex modes in data communication.

b) Describe the principles of packet switching and circuit switching techniques with neat diagram.

c) Explain configuration of TCP/IP protocol in network.

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

a) Describe bluetooth architecture technologies.

b) Explain the process of DHCP server configuration.

c) Describe wireless infrastructure components in detail.

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