

22414

21222

3 Hours / 70 Marks

Seat No.

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15 minutes extra for each 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) 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 computer Network.
 - b) List types of multiplexing.
 - c) List different types of errors.
 - d) List different types of network connecting devices.
 - e) Define :
 - (i) Bit rate
 - (ii) Baud rate
 - f) List classes of IP addresses.
 - g) Define following terms:-
 - (i) Protocol
 - (ii) Bandwidth
- 2. Attempt any THREE of the following: **12****
- a) Describe modes of communication.
 - b) Explain 802.11 Architecture.
 - c) Explain bluetooth Architecture.
 - d) Draw a neat diagram of twisted pair cable and state its types.

P.T.O.

- 3. Attempt any THREE of the following:** **12**
- a) Describe the components of data communication with neat diagram.
 - b) Explain LRC with example.
 - c) Describe line of sight transmission.
 - d) Describe various mobile generations in detail.
- 4. Attempt any THREE of the following:** **12**
- a) Consider a network with 8 computer, which network architecture should be used peer to peer or Client Server ? Justify the answer.
 - b) Compare packet switched and circuit switched network.
 - c) List the protocols related to all layers of OSI reference model.
 - d) Explain satelite communication.
 - e) Describe the process of DHCP server configuration.
- 5. Attempt any TWO of the following:** **12**
- a) Explain the working of hub, switch and bridge.
 - b) Describe the procedure to configure the TCP/IP network layer services.
 - c) Explain multiplexing techniques.
- 6. Attempt any TWO of the following:** **12**
- a) Explain the working of following topologies :-
 - (i) Bus
 - (ii) Ring
 - (iii) Tree
 - b) Explain the working of OSI model layers.
 - c) Explain ARP, subnetting and supernetting with example.
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