

17429

11920

3 Hours / 100 Marks

Seat No.

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- 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) Assume suitable data, if necessary.
 - (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. (A) Attempt any SIX :

12

- (a) State any two advantages of computer Network.
- (b) Define LAN.
- (c) What is Modem ? State any two functions of modem.
- (d) What is Network device-Switch ?
- (e) Draw and label fiber optics cable.
- (f) List the types of unguided media.
- (g) Define Data Encapsulation and Protocol.
- (h) List two transport layer protocol.

- (B) Attempt any TWO :** **8**
- (a) State any four applications of computer Network.
 - (b) What is repeater ? Explain its working with diagram.
 - (c) What is Wi-Max ? State its advantages and disadvantages.
- 2. Attempt any FOUR :** **16**
- (a) Compare LAN and WAN on the basis of
 - (i) Area
 - (ii) Ownership
 - (iii) Speed
 - (iv) Error rate
 - (b) Explain different types of server in brief.
 - (c) What is Wi-Max ? State its advantages and disadvantages.
 - (d) If you have only two computer to connect to a network, which of the cable type is most appropriate ? Justify your answer by describing its features.
 - (e) Explain in detail client-server architecture.
 - (f) Describe basic principle of mobile communication.
- 3. Attempt any FOUR :** **16**
- (a) Explain peer to peer network and where it is used.
 - (b) Explain Gateway with diagram.
 - (c) Why layered architecture is used in OSI reference model ? Describe in detail.
 - (d) Enlist functions of Data Link Layer in OSI model.
 - (e) State any four protocols associated with application Layer of OSI model.
 - (f) Compare TCP and UDP on any four points.

4. Attempt any FOUR :**16**

- (a) Explain Subnetting with example.
- (b) Define IP Addressing. List IP Address classes with their range of addresses.
- (c) With help of diagram, explain satellite communication.
- (d) Draw and explain TCP header format.
- (e) Enlist four functions of presentation layer.
- (f) Explain Network Services :
 - (i) File Sharing
 - (ii) Printer sharing

5. Attempt any FOUR :**16**

- (a) Explain classless IP Addressing.
- (b) Describe :
 - (i) Hub
 - (ii) Router
 - (iii) Switch
 - (iv) Gateway
- (c) Compare Guided media and unguided media.
- (d) What is NIC ? State three functions of NIC.
- (e) Explain the functions of IP protocol.
- (f) Draw the sketch of bus topology and explain.

P.T.O.

6. Attempt any TWO :**16**

- (a) Explain OSI model and its layers with neat diagram.
 - (b) Compare IPv4 and IPv6.
 - (c) Explain Bluetooth Architecture with diagram :
 - (i) Piconet
 - (ii) Scatternet
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