

**2011**

*Time : 3 hours*

*Full Marks : 80*

*Candidates are required to give their answers in their own words as far as practicable.*

*The figures in the margin indicate full marks.*

*Answer from **both** the Groups as directed.*

**Group – A**

**(Objectives Type Questions)**

1. Choose the correct answer of the following :

2×10 = 20

(a) The HDLC is developed by the \_\_\_\_\_

(i) ISO

(ii) IBM

(iii) Sun

(iv) None of the above



(b) Bridge filter network traffic depends on \_\_\_\_\_ address.

- (i) MAC
- (ii) CAM
- (iii) Both (i) and (ii)
- (iv) None of the above

(c) \_\_\_\_\_ standard specifies the protocol and access mechanism for a Metropolitan Area Network.

- (i) IEEE 802.5
- (ii) IEEE 802.6
- (iii) IEEE 802.2
- (iv) IEEE 802.1

(d) CSMA stands for \_\_\_\_\_ .

- (i) Carrier Sense Multiple Access
- (ii) Carrier Send Multiple Access
- (iii) Carrier Senseless Multi Access
- (iv) None of the above

(e) Which of the following is true ?

- (i) TCP/IP link allows your computer to function as an internet host.
- (ii) LAN links allows your computer to function as an internet host.



- (iii) TCP/IP links does not allow your computer to function as an internet host.
- (iv) LAN links cannot be used as internet host.
- (f) The network area within which data packets originates and collides is called as \_\_\_\_\_.
  - (i) Collision Detection
  - (ii) Collision Domain
  - (iii) Common Domain
  - (iv) None of the above
- (g) OSPF supports connection and network of \_\_\_\_\_ types.
  - (i) Point-To-Point lines backward exactly two routers.
  - (ii) Multi-Access Networks with broadcasting.
  - (iii) Multi-Access Network without broadcasting.
  - (iv) All of the above
- (h) The ALOHA network was created at \_\_\_\_\_.
  - (i) AT and T and Bell Labs.
  - (ii) University of Hawaii
  - (iii) MIT
  - (iv) None of the above



- (i) FDM is used in \_\_\_\_\_ communications.
- (i) Analog
  - (ii) Digital
  - (iii) Both (i) and (ii)
  - (iv) None of the above
- (j) Which of the following technology is based on virtual circuits ?
- (i) Frame Relay
  - (ii) Token Bus
  - (iii) Token Ring
  - (iv) Ethernet

**Group – B**

**(Long-answer Type Questions)**

Answer any **four** of the following :  $15 \times 4 = 60$

2. What are the data units at different layers of the TCP/IP protocol suite ? What are the difference between base-band and broad-band transmission ?
3. What is CSMA/CD ? Define its collision detected feature. Also define Time Division Multiplexing and differentiate it with SDM.



- RESERVED    BCAMP
4. Illustrate the concept of internetworking devices. Briefly explain about Distance Vector Routing Algorithm.
  5. Explain the OSI reference model with diagram. Compare the OSI and TCP/IP models.
  6. What do you mean by shortest path routing ? Distinguish it with Flow Based Routing.
  7. What is the use of VPN ? Compare static and dynamic routing. What are the various dynamic routing protocols ?
  8. Compare the IEEE standards 802.1, 802.2, 802.3, 802.4, 802.5, and 802.6 briefly.
  9. Explain attenuation. Also discuss the types of transmission media.

