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:
   \[2 \times 10 = 20\]

(a) The HDLC is developed by the ______
   (i) ISO
   (ii) IBM
   (iii) Sun
   (iv) None of the above

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(Turn over)
(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 Hawai"i
(iii) M I T
(iv) None of the above

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(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 × 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.

JX – 25/2 (4) Contd.
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.


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.

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