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Paper Code : BCAC502   Computer Networking

Time Allotted : 3 Hours

Full Marks :70

The Figures in the margin indicate full marks.
Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

[1 x 10 = 10]

1. Answer any ten of the following :

   (I) Hamming code can detect up to _____ if minimum Hamming distance is 3.
   (a) 2 (b) 3 (c) 4 (d) 5

   (II) Which multiple access technique is used by IEEE 802.11 standard for wireless LAN?
   a. CDMA b. CDMA/CD c. CDMA/CA d. None of the above

   (III) Mapping from MAC address to IP address is done by

   (IV) What is quality of services?

   (V) What is HTTPS?

   (VI) Differentiate between Guided and Unguided media?

   (VII) Which topology requires a central controller or hub?

   (VIII) The data link layer takes the packets from ___ and encapsulates them into frames for transmission.
   (a) network layer (b) physical layer (c) transport layer (d) application layer

   (IX) 802.11 wireless networking uses what method as the media access method?
   a. CSMA/CD b. CTS/RTS c. CSMA/CA d. CSCD/CA

   (X) A 4 byte IP address consists of _____

   (XI) If a 120 V carrier peak changes from 170 V to 50 V by a modulating signal, find the modulation factor?
   (a) 0.5 (b) 1.5 (c) 2.5 (d) 3.5

   (XII) Automatic repeat request error management mechanism is provided by ____
   a) logical link control sublayer   b) media access control sublayer
   c) network interface control sublayer d) application access control sublayer

Group-B (Short Answer Type Question)
Answer any three of the following

[5 x 3 = 15]

2. What are the different types of networks? Explain. [5]

3. Brief Three functions of data link layer ? [5]

4. How does HDLC work? [5]

5. What CSMA means? Why do we use it? [5]

6. Responsibilities of the transport layer. [5]

Group-C (Long Answer Type Question)
Answer any three of the following

[15 x 3 = 45]

7. (a) Explain three controlled access method. [10]
   (b) A 4 Mbps token ring has a token holding timer value 10 ms. What is the longest frame that can be sent on this ring? [5]

8. (a) Difference between Token Bus and Token Ring network? [10]
   (b) Difference between CSMA/CD and CSMA/CA network? [5]

9. (a) Describes the services provided by the PPP Protocol . [5]
   (b) If the window size is 15, give the sequence number of frames in Go-back-N ARQ and selective-repeat ARQ. [5]
   (c) Write a short note on channel allocation. [5]

10. (a) Difference between hub and switch? [10]

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(b) Difference between OSI and TCP/IP. [5]

11. (a) Represent HellO34 in EBCDIC Code. [7]

   (b) Difference between Network and Transport layer. [3]

   (c) What is Bridge and Hub? [5]

*** END OF PAPER ***