MSCCS-11/MSCCS-205/MCA-205

June - Examination 2017

MSCCS-Final/MCA-2nd Year Examination

Data Communication and Networks

Paper - MSCCS-11/MSCCS-205/MCA-205

Time : 3 Hours]   **[Max. Marks :- 100**

Note: The question paper is divided into three sections A, B and C. Write answers as per given instructions.

Section - A $10 \times 2 = 20$
(Very Short Answer Questions)

Note: Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

1) (i) Find the Hamming distance between two binary pattern 10101 and 11110.

   (ii) What is the full form of HDLC Protocol?

   (iii) What is the use of flags?

   (iv) List the uses of Internet.

   (v) Give example of connection oriented and connectionless services.

   (vi) Why is HTTP called as 'Stateless Protocol'?

(vii) Differentiate between Analog Signal and Digital Signal.

(viii) What is localhost?

(ix) What is the purpose of cladding in fibre optic cable?

(x) Describe the role of DNS.

Section - B $4 \times 10 = 40$

(Short Answer Questions)

Note: Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 10 marks.

2) What are the three major classes of guided media? Explain each in detail.

3) Explain the functions performed by data link layer.

4) With the help of proper diagram explain how tunneling a packet from one location to another location is performed.

5) What is Hub? Explain the key features of Hub.

6) Discuss the usage of ARP. How ARP differs from RARP?

7) Describe the comparison of Circuit Switching and Packet Switching.

8) Discuss the features of protocol design and layout of TCP segment.

9) Explain NRZ-L, NRZ-I and RZ line encoding.

Section - C $2 \times 20 = 40$

(Long Answer Questions)

Note: Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 20 marks.

10) Why Multiplexing is needed in data communication system? Explain the classification of Multiplexing in data communication system.

11) What are the principles of Internet Protocol? Distinguish between IPv4 and IPv6.

12) Explain Pure ALOHA and Slotted ALOHA. Give relationship in terms of their throughput.

13) Write short note on the following:

   (i) Secure Socket Layer

   (ii) IPSec

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