MCA – 31

III Semester M.C.A. Examination, Feb./March 2010
DATA COMMUNICATION

Time : 3 Hours Max. Marks : 100

Instructions *: 1) Answer **all** questions in Part **A**, **5** out of **8** in Part **B**, and **4** out of **6** questions in Part **C**.*
*2) Part **A** : Questions from **1** to **8** carry **1** mark and **9** to **14** carry **2** marks **each**.*
*3) Part **B** : **Each** questions carries **8** marks.*
*4) Part **C** : **Each** question carries **10** marks.*

PART – A

1. What do you mean by Broadband?
2. Write the expansion of ARPANET AND IEEE.
3. What is an Ethernet?
4. What is a frame?
5. What is piggybacking?
6. Mention any two connection-oriented networks.
7. Define bit rate and Baud rate.
8. Define bandwidth.
9. Explain Channel capacity formula.
10. List the services provided by Data link layer.
11. What is a HTTP server?
12. What is a network topology?
13. What is a protocol suite? Give an example.
14. What is a repeater?

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PART – B

1. Explain the various functions of different layers in OSI reference model.
2. Explain the following terms: ASK, FSK and PSK.
3. Explain the different types of circuit switches.
4. Explain i) Sliding Window Protocol ii) Piggybacking Technique.
5. What is line encoding? Explain different techniques of it.
6. Explain different approaches to detect data errors.
7. Explain LAN, WAN and MAN.
8. Explain the following terms with a neat diagram
   i) Frequency ii) Bandwidth iii) Phase

PART – C

1. With a suitable diagram , explain OSI reference model.
2. What is a bridge? List out the advantages of having bridges.
3. How is flow control handled in frame relay?
4. Discuss various modulation techniques.
5. Explain with frame format IEEE802.3
6. Write a short notes on :
   i) SONET/SDH
   ii) ISDN
   iii) HDLC
   iv) IEEEE 802.5

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