IMCA – 31

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

Time: 3 Hours Max. Marks: 100

Instructions: *1) Answer **all** questions in Part – **A**, **5** questions in Part – **B**, and **4** questions in Part – **C**.*
*2) PART – **A**: Questions from **1 to 8** carry **1** mark **each** and **9 to 14** carry **2** marks **each**.*
*3) PART – **B**: **Each** question 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 architecture ?
5. What is piggybacking ?
6. Define Bit rate and Baud rate.
7. What is broadcasting ?
8. What is an error control ?
9. Explain any two switching techniques in brief.
10. Enumerate any two protocols used in E-Mail application.
11. What do you mean by a stateless protocol ?
12. What is a network topology ?
13. What is a protocol suite ? Give an example.
14. What is a repeater ?

P.T.O.

PART – B

1. Explain the various functions of different layers in TCP/IP.
2. Explain the following terms: ASK, FSK and PSK.
3. Explain selective repeat protocol. Justify how it is efficient compared to go back-n protocol.
4. Sketch the Manchester and differential Manchester encoding for the following bit stream 0001110101.
5. Explain different approaches to detect data errors.
6. Differentiate LAN, WAN and MAN.
7. Explain the following terms with a neat diagram
   i) Frequency ii) Bandwidth iii) Phase
8. Explain the different types of MULTIPLEXING.

PART – C

1. What is FDDI? Explain in detail.
2. What is a bridge? List out the advantages of having bridges.
3. How is flow control handled in frame relay ?
4. How are ATM cells multiplexed ?
5. Explain with frame format IEEE802.5
6. What are circuit switches ? Explain the different kinds of circuit switching techniques.