

# Madras University

## M.C.A Computer Networks Question paper

**Time: Three hours**

**Maximum: 75 marks**

Passing Minimum : 38 marks

### **PART A - [5 x 5 = Marks 25]**

Answer ALL questions.

All questions carry equal marks.

1. (a) Explain different network architectures.  
Or  
(b) What are the various reasons for having network standards? Explain.
2. (a) Explain the role of physical layer briefly.  
Or  
(b) Mention the advantages of optical fiber transmission media.
3. (a) Describe the simplex protocol and mention its limitations.  
Or  
(b) What are error detecting codes? Give examples.
4. (a) Explain the reasons for congestion in networks.  
Or  
(b) Describe briefly about packet discarding technique of congestion control.
5. (a) List the features of transport layer.  
Or  
(b) Write short notes on Ethernet.

**Part B - [5 x 10 = Marks 50]**

Answer any Five questions.

All questions carry equal marks.

6. Explain OSI reference model in detail.
7. Discuss different switching schemes and compare them.
8. Explain the sliding window protocol with the algorithm used.
9. (a) Explain the concept of internetworking.  
(b) Mention the advantages and disadvantages of centralized routing.
10. Explain the design issues of transport layer.
11. Explain any one mechanism used for error correction.
12. (a) Explain different methods of terminal handling.  
(b) Write short notes on ISDN.
13. Discuss the protocol performance specification and verification procedures.