2008 COCHIN UNIVERSITY OF SCIENCE & TECHNOLOGY

B.TECH ELECTRICAL AND ELECTRONIC ENGINEERING
COMPUTER COMMUNICATION NETWORKS

NOVEMBER 2008

TIME: 3 HOUR
MARK: 90

ANSWER ANY SIX QUESTION
ALL QUESTIONS CARRY EQUAL MARKS

MARK [6*15]

1a. With a neat diagram, explain the ISO OSI layers and their functions

b. Explain the various applications of computer networks

2a. Explain the various network topologies

b. Differentiate between connection oriented and connection less sources

3a. What is a modem? What are its functions? Explain in detail any one type of modem

b. Explain X-21 digital interface

4a. Explain in detail about stop and wait sliding window protocol

b. Write notes on : i) Terminal handling ii) Polling

5a. What is the need for congestion control? Explain any one congestion control algorithm

b. Explain the working of Token ring network

6a. Write notes on :

i) IEEE 802 standard ii) CSMA/CD

b. What do you mean by routing? Explain any one routing algorithm

7a. Explain about:

i) Remote procedure call ii) Client-server model

b. What are the functions of transport layer?

8 . Write notes on:

i) Multiplexing
ii) Crash recovery

iii) Flow control and buffering
iv) Activity management

9a. What is meant by data compression? Explain any one technique

b. Explain concurrency control in file transfer

10a.Write short notes on:

i) Cryptography
ii) Electronic mail
iii) Distributed systems
iv) Virtual terminal