Bachelor Level/ Third Year/ Fifth Semester/ Science   Full   Marks: 60
Computer Science and Information Technology (CSc.   Pass   Marks: 24
301) (Computer Networks)   Time: 3 hours

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Group A

Long Answer Questions:

Attempt all questions: (2x10=20)

1. Define protocol. Why do we need layered protocol architecture? Discuss each layer of TCP/IP protocol architecture in detail.

OR

Define transmission media. Differentiate between guided and unguided transmission media. Discuss each guided transmission media in detail.

2. What is routing? Discuss link state routing algorithm in

detail.

Group B

Short Answer Questions:

Attempt any eight: (8x5=40)

3. Explain client server system. How is it different from peer to peer system?

4. Discuss HTTP in detail.

5. Discuss the importance of multiplexing in data communication.

6. Assume a class B network and divide it into four subnets. What is the value of new subnet mask?

7. Discuss CRC as an error detection mechanism.

8. Explain the importance of multimedia network.

9. Why is network management an important task?

10. What is congestion control? Why do we need it?

11. Write short note on:

     a. DNS
     b. Streaming audio and video