

**Fifth Semester B.E. Degree Examination, Feb./Mar. 2022**  
**Computer Networks**

Time: 3 hrs.

Max. Marks: 80

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

**Module-1**

- 1 a. Discuss the two application architectures. (08 Marks)  
 b. Distinguish between non-persistent HTTP and persistent HTTP. (08 Marks)

OR

- 2 a. Discuss the File Transfer Protocol (FTP). (08 Marks)  
 b. Explain DNS name resolution, with an example. (08 Marks)

**Module-2**

- 3 a. Explain the reliable data transfer 2.0 (rdt 2.0). (08 Marks)  
 b. Explain Go-Back N protocol. (08 Marks)

OR

- 4 a. Explain the flow control mechanism in TCP. (08 Marks)  
 b. Explain the TCP Tahoe Congestion Control mechanism. (08 Marks)

**Module-3**

- 5 a. Explain the architecture of router. (08 Marks)  
 b. Apply the link state routing protocol algorithm to find shortest path from source node A to all other nodes on the following Fig.Q.5(b). (08 Marks)

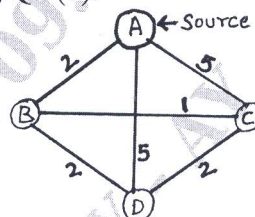


Fig.Q.5(b)

OR

- 6 a. Discuss hierarchical routing protocol. (08 Marks)  
 b. Apply the distance vector routing protocol algorithm to find the shortest path from source node A to all other nodes on the following Fig.Q.6(b). (08 Marks)

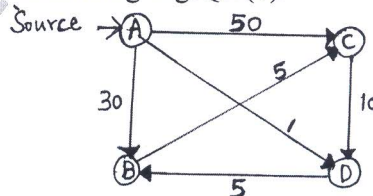


Fig.Q.6(b)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
 2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.

**Module-4**

- 7 a. Explain 3G (voice and data) cellular network architecture. (08 Marks)  
b. Explain the vocabulary of Mobile-IP networks. (08 Marks)

**OR**

- 8 a. Discuss any one routing algorithm in Mobile-IP networks. (08 Marks)  
b. Discuss the handoff procedure in GSM networks. (08 Marks)

**Module-5**

- 9 a. Discuss the three types of multimedia networking applications. (08 Marks)  
b. Explain the challenges in streaming stored video data. (08 Marks)

**OR**

- 10 a. Illustrate the content delivery in Netflix. (08 Marks)  
b. Explain the differentiated service architecture for QoS. (08 Marks)

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