15CS52

USN

Fifth Semester B.E. Degree Examination, Jan./Feb. 2023
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. Describe HTTP with persistent and non-persistent connection. (08 Marks)
   b. Explain web caching with neat diagram. (08 Marks)

OR

2 a. Explain FTP with its commands and replies. (08 Marks)
   b. Demonstrate socket implementation using TCP. (08 Marks)

Module-2

3 a. Explain Sender's view of sequence numbers and its operation in Goback-N-protocol. (08 Marks)
   b. With a neat diagram, explain the TCP segment structure. (08 Marks)

OR

4 a. Define Flow Control. Explain how flow is controlled by receiver window and receiver buffer. (08 Marks)
   b. Explain 3 way handshake and closing a TCP connection. (08 Marks)

Module-3

5 a. What is routing? Explain the structure of a router. (08 Marks)
   b. Explain distance vector algorithm. (08 Marks)

OR

6 a. List the broadcast routing algorithms. Explain any two of them. (08 Marks)
   b. Explain 4 types of hierarchical OSPF routers. (04 Marks)
   c. Explain RIP (Routing Information Protocol) with its message format. (04 Marks)

Module-4

7 a. Explain components of cellular network architecture. (08 Marks)
   b. Define Handoff. Explain the steps accomplishing a handoff. (08 Marks)

OR

8 a. Explain direct routing of a mobile node. (08 Marks)
   b. Illustrate the steps involved in MobileIP registration with home agent. (08 Marks)

Module-5

9 a. With a neat diagram, explain naïve architecture for audio/video streaming. (08 Marks)
   b. Explain the diffserv internet architecture. (08 Marks)

OR

10 a. Explain Content Distribution Networks (CDN) and its operations. (08 Marks)
   b. Summarize the limitations of Best-effort IP service. (08 Marks)

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