CBCS SCHEME

17CS52

Fifth Semester B.E. Degree Examination, Jan./Feb. 2023
Computer Networks

Time: 3 hrs.   Max. Marks: 100

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

Module-1

1 a. With general format, explain the HTTP request and response messages.   (10 Marks)
   b. With neat diagram, illustrate the basic operation of SMTP.   (10 Marks)

OR

2 a. Explain recursive queries in DNS with neat diagram.   (10 Marks)
   b. With neat diagram, explain DNS message format.   (10 Marks)

Module-2

3 a. With general format, explain the various fields of UDP segment. Explain how checksum is calculated.   (10 Marks)
   b. With neat diagram, explain the working of rdt 2.0.   (10 Marks)

OR

4 a. With general format, explain all the field in TCP segments.   (10 Marks)
   b. Explain TCP connection management process with neat diagram.   (10 Marks)

Module-3

5 a. With a neat diagram, explain the structure of a router.   (10 Marks)
   b. Write the link state algorithm and apply it to the following graph to compute shortest path from source node 'A' to all other nodes in the network. [Refer Fig.Q5(b)]
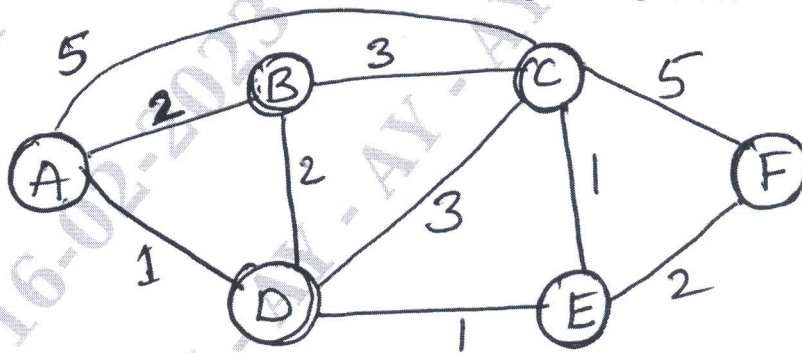

Fig.Q5(b)   (10 Marks)

OR

6 a. With general format, explain the various fields of IPV6.   (10 Marks)
   b. Explain the intra-AS routing protocol in detail.   (10 Marks)

Module-4

7 a. Explain the 3G cellular network architecture with neat diagram.   (10 Marks)
   b. Explain the two types of routing approaches to mobile node.   (10 Marks)

OR

8 a. Explain the three phases of mobile IP. (10 Marks)
   b. What is hand off? What are the steps involved in accomplishing handoff? (10 Marks)

Module-5

9 a. Explain the three different types of streaming stored video. (10 Marks)
   b. Discuss the properties of audio and video. (10 Marks)

OR

10 a. Explain the working of CDN. (10 Marks)
    b. What are the classifications in multimedia network applications? Explain. (10 Marks)

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