CBCS SCHEME

17CS52

Fifth Semester B.E. Degree Examination, June/July 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. Explain the transport services available to applications.   **(05 Marks)**
    b. Explain the HTTP message formats with an example.   **(10 Marks)**
    c. Explain the FTP commands and replies.   **(05 Marks)**

OR

2 a. What are the services provided by DNS?   **(05 Marks)**
    b. Explain in detail DNS hierarchical database.   **(07 Marks)**
    c. Explain the file distribution time in P2P and client server architecture.   **(08 Marks)**

Module-2

3 a. Explain Go back N protocol.   **(10 Marks)**
    b. Explain TCP segment structure.   **(10 Marks)**

OR

4 a. Explain TCP connection management.   **(06 Marks)**
    b. Explain the approaches to congestion control.   **(04 Marks)**
    c. Explain the 3 phases of TCP congestion control.   **(10 Marks)**

Module-3

5 a. Explain the Router architecture in detail.   **(10 Marks)**
    b. Explain IPV4 and IPV6 header.   **(10 Marks)**

OR

6 a. What are the features of link state algorithm? Explain the algorithm with an example.   **(10 Marks)**
    b. What are the two approaches adopted for determining multicast tree? Explain with an example.   **(10 Marks)**

Module-4

7 a. Explain in details the cellular network architecture.   **(05 Marks)**
    b. Explain on to 4G : LTE.   **(07 Marks)**
    c. Explain the agent registration in Mobile IP.   **(08 Marks)**

OR

8 a. Explain in detail 3G cellular architecture. **(05 Marks)**
   b. What are the reasons for handoff in GSM? Explain with neat diagram the handoff process in GSM. **(10 Marks)**
   c. Explain direct routing to a Mobile user. **(05 Marks)**

Module-5

9 a. What are the different types of multimedia network applications? Explain. **(08 Marks)**
   b. What are the different server placement philosophies? Explain. **(05 Marks)**
   c. Explain CDN operation in detail. **(07 Marks)**

OR

10 a. Write short notes on the following:
    i) UDP streaming   ii) DASH. **(10 Marks)**
    b. Explain Resource Reservation and call admission. **(05 Marks)**
    c. Explain the three network level approaches to support multimedia applications. **(05 Marks)**

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