Fifth Semester B.E. Degree Examination, July/August 2022
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. Describe HTTP with persistent and non-persistent connections.   (10 Marks)
   b. Compare client server and Peer-to-Peer architecture.   (05 Marks)
   c. Explain the working of Bit Torrent for file distribution.   (05 Marks)

OR

2 a. Describe in detail the services provided by DNS and explain the DNS message format.
                                                                           (10 Marks)
   b. Define a Socket. Describe the socket programming with a help of diagram for TCP.
                                                                           (10 Marks)

Module-2

3 a. With the help of FSM, describe the two states of the sender side and one state of the receiver side rdt2.0.   (07 Marks)
   b. Explain selective repeat ARQ protocol.   (06 Marks)
   c. Draw TCP segment structure and explain its fields.   (07 Marks)

OR

4 a. Explain in brief, TCP congestion control mechanisms.   (10 Marks)
   b. Explain the concept of transport layer multiplexing and demultiplexing.   (10 Marks)

Module-3

5 a. What is routing? Explain the structure of a router with a neat diagram.   (10 Marks)
   b. Explain Dijkstra's algorithm with example.   (10 Marks)

OR

6 a. Explain IPV6 datagram format with neat diagram.   (10 Marks)
   b. Explain the spanning tree algorithm and give its advantages and disadvantages.   (10 Marks)

Module-4

7 a. Explain 3G system architecture.   (08 Marks)
   b. Explain the two different routing approaches to mobile node.   (12 Marks)

OR

8 a. What is hand off? What are the steps in accomplishing hand off?   (10 Marks)
   b. Compare mobile IP and GSM mobility.   (05 Marks)
   c. Explain Agent Discovery with diagram.   (05 Marks)

Module-5

9 a. List and explain the types of multimedia networking application.   (10 Marks)
   b. Describe the DiffServ Internet Architecture.   (05 Marks)
   c. Explain CDN operation.   (05 Marks)

OR

10 a. Write a short notes on: (i) Netflix video streaming platform.   (ii) VOIP with skype.
                                                                           (10 Marks)
   b. Explain briefly the QoS Guarantees Resource reservation and call admission process with neat diagram.   (10 Marks)

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