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15CS52

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020
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. Explain client server and peer-to-peer architecture. (08 Marks)
   b. Describe HTTP with persistent and non-persistent connections. (08 Marks)

OR

2 a. Discuss how files are distributed in peer-to-peer application. (08 Marks)
   b. Demonstrate socket implementation using TCP. (08 Marks)

Module-2

3 a. With a diagram, explain the connection-oriented multiplexing and de-multiplexing. (06 Marks)
   b. Elaborate the three way handshaking in TCP. (05 Marks)
   c. Discuss Go-Back N protocol. (05 Marks)

OR

4 a. With a neat sketch, explain the TCP segment and its services. (08 Marks)
   b. Design rdt 2.0 protocol. (08 Marks)

Module-3

5 a. With general format, explain various fields of IPV6. (08 Marks)
   b. Define routing algorithm. List the broadcast routing algorithms. Explain any one of them. (08 Marks)

OR

6 a. Illustrate Routing Information Protocol (RIP) with suitable diagram. (08 Marks)
   b. Explain the spanning tree algorithm and give its advantages and disadvantages. (08 Marks)

Module-4

7 a. With a diagram, explain various components of GSM 2G cellular network architecture. (08 Marks)
   b. With a diagram, explain the following with respect to mobile IP:
      (i) Agent discovery   (ii) Registration with the home agent (08 Marks)

OR

8 a. Illustrate the steps involved when a base station does decide to hand-off a mobile user. (08 Marks)
   b. Compare mobile IP and GSM mobility. (04 Marks)
   c. With a diagram, explain the problem and its solution in direct routing. (04 Marks)

Module-5

9 a. With a neat diagram, explain the CDN operation. (08 Marks)
   b. Briefly explain the properties of Video and Audio. (08 Marks)

OR

10 a. Explain the working procedure of leaky bucket algorithm. (08 Marks)
    b. Discuss the followings: (i) Adaptive streaming   (ii) DASH (08 Marks)

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