



CBCS SCHEME

17CS52

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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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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