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15CS52

Fifth Semester B.E. Degree Examination, July/August 2021 Computer Networks

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions.

- 1 a. Explain the general format of an HTTP request message with a neat diagram. (08 Marks)
b. With a neat diagram, explain the architecture of P2P. What are the major challenges of P2P? (08 Marks)
- 2 a. Explain a client server application over TCP using a socket program. (08 Marks)
b. Explain the working of DNS server. (08 Marks)
- 3 a. Why does an application developer would choose to build an application over UDP rather than over TCP? Give reasons. (08 Marks)
b. Discuss the Go-Back-n protocol and compare with selective repeat. (08 Marks)
- 4 a. With a neat diagram, explain the TCP segment structure. (08 Marks)
b. List the TCP congestion control algorithms. Explain any one method with a neat diagram. (08 Marks)
- 5 a. Explain the various switching techniques used in a router. (08 Marks)
b. What are the various approaches used for transition from IPV4 to IPV6? Explain tunneling. (08 Marks)
- 6 a. Explain Dijkstra's algorithm and find the shortest path for the graph given below using Link State algorithm. (08 Marks)

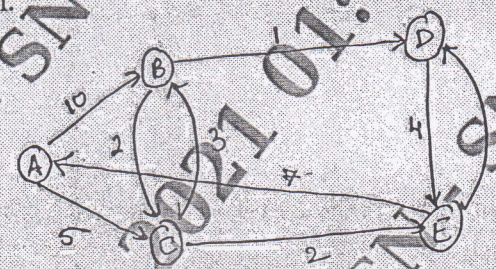


Fig.Q6(a)
- b. How does BGP use the Next-Hop attribute? How does it use the AS-PATH attribute? (08 Marks)
- 7 a. Explain the 3G System Architecture with a neat diagram. (08 Marks)
b. List the approaches used in Routing to a Mobile node. Explain Direct routing to a Mobile Node. (08 Marks)
- 8 a. Discuss the Agent advertisement and mobile IP registration with a neat diagram. (08 Marks)
b. Explain Handoffs in GSM between base stations. (08 Marks)
- 9 Write short notes on: (08 Marks)
 - a. Content Distribution Network (08 Marks)
 - b. HTTP Streaming
- 10 a. Write a note on Diffserv architecture. (08 Marks)
b. Discuss Resource Reservation and Call Admission in Multimedia Network. (08 Marks)

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.