

R18

Code No: 155FM

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year I Semester Examinations, January/February - 2023

INTERNETWORKING with TCP/IP

(Computer Science and Engineering - Networks)

Time: 3 Hours

Max. Marks: 75

Note: i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A

(25 Marks)

- 1.a) Why do you think that we do not need Addresses at the Physical Layer? [2]
- b) What is Loop problem in a Learning Bridge? [3]
- c) Give various levels of Class Full Addressing. [2]
- d) List the TCP Services. [3]
- e) Define Bursty Data. [2]
- f) What do you understand by Jitter? [3]
- g) What are Goals of Active Queue Management? [2]
- h) Define Queue Management. [3]
- i) Draw the Packet Format of SCTP. [2]
- j) What is Transaction Oriented TCP? [3]

PART – B

(50 Marks)

- 2.a) Discuss in brief about TCP/IP protocol Suite.
- b) Categorize the Connecting devices based on the layer in which they operate in a Network. [5+5]

OR

- 3.a) What is the significance of Layered Architecture? Explain the OSI layered architecture with neat sketch.
- b) What is a Backbone Network? Discuss about various Backbone Networks. [5+5]

- 4.a) Discuss about the Header Format of UDP.
- b) Draw and Explain the Components of Internet Architecture. [5+5]

OR

- 5.a) Explain three way Hand shaking protocol to establish TCP connection.
- b) Provide a simple overview of IPv6 and compare it with IPv4. [5+5]

- 6.a) How does Frame Relay control congestion? Discuss.
- b) Outline the various Scheduling techniques to improve the Quality of Service. [5+5]

OR

- 7.a) Discuss in detail about DEC Bit Scheme for Congestion Control.
- b) Distinguish between Integrated and Differentiated services. [4+6]

- 8.a) Relate FIFO, Drop Tail, Drop Front, Random Drop mechanisms. [6+4]
b) Discuss about Effectiveness of RED.

OR

- 9.a) Provide Passive Buffer Management Schemes. [5+5]
b) What QoS does RED Provide? Explain.

- 10.a) Explain Error control mechanisms in Stream Control Transport Protocol. [5+5]
b) Discuss in detail about Snooping TCP.

OR

- 11.a) Outline the various Features of SCTP. [5+5]
b) Write about Inefficiency in Mobile IP.

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Used papers 2023