

Code No: 127BY

R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, July/August - 2023

COMPUTER NETWORKS

(Electronics and Communication Engineering)

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) Name all the point to point layers in OSI reference model. [2]
- b) What is stop and wait protocol. [3]
- c) What is bit map collision free protocol? [2]
- d) What are the challenges in channel allocation problem? [3]
- e) What are disadvantages of flooding routing algorithm? [2]
- f) What is count to infinity problem? [3]
- g) List any four options of IP packet. [2]
- h) What is loop back IP address? [3]
- i) What is a port number in transport layer? [2]
- j) Write any three application layer protocols for remote login. [3]

PART – B

(50 Marks)

2. Explain OSI reference model in detail. [10]
- OR
3. Explain different flow control methods employed in data link layer. [10]
- 4.a) Compare collision free and collision sense protocols.
- b) Explain the concept of spanning tree bridges. [5+5]
- OR
- 5.a) Write about IEEE 802.3 protocol.
- b) Explain different problems encountered in building bridges from 802.X to 802.Y. [5+5]
6. Write a detailed note on connection oriented and connection less network and compare them. [10]
- OR
7. Write about different congestion control algorithms along with merits and demerits. [10]
8. Explain ARP and RARP protocols and compare them. [10]
- OR
9. Write about TCP segment header in detail. [10]
- 10.a) Explain TCP service model.
- b) Give a briefing on e-mail. [5+5]
- OR
11. Write about DNS in detail. [10]