

Code No: 154CG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech II Year II Semester Examinations, April/May - 2023****COMPUTER NETWORKS**
(Common to CSE(CS), CSE(N))**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) What is internet? [2]
- b) Write a brief note on ARPANET. [3]
- c) What is the purpose of using sliding window protocol? [2]
- d) List the three types of requests for the noisy channels. [3]
- e) What is shortest path routing? [2]
- f) Differentiate between connection oriented and connectionless network services. [3]
- g) What is multiplexing? [2]
- h) What is the functionality of transport Layer? [3]
- i) State the functions of application layer. [2]
- j) List the protocols of application layer. [3]

PART – B**(50 Marks)**

- 2.a) Explain the functioning of various layers in TCP/IP reference model.
 - b) Give a brief overview on guided transmission media. [5+5]
- OR**
3. Explain the following:
 - a) Network software
 - b) Wireless transmission. [5+5]
- 4.a) Describe the features of the ALOHA protocol.
 - b) Compare i-persistent, non-persistent and p-persistent CSMA. [5+5]
- OR**
- 5.a) Explain bit-map and binary countdown collision free protocols.
 - b) Classify and explain about framing in data link layer. [5+5]
- 6.a) With an example, explain reverse path routing.
 - b) Write short notes on the network layer in the internet. [5+5]
- OR**
- 7.a) Compare multicasting with broadcasting.
 - b) Explain in detail about hierarchical routing. [5+5]

8. Write a detailed summary on TCP and UDP protocols. [10]

OR

9. State and explain the elements of transport protocols. [10]

10. Explain the following:

a) Domain name system

b) HTTP.

[5+5]

OR

11.a) Describe the components of electronic mail system.

b) Differentiate between WWW and Internet.

[5+5]

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Used papers 2023