

**Code No: 843AB****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA III Semester Examinations, December - 2019****COMPUTER NETWORKS****Time: 3hrs****Max.Marks:75****Note:** This question contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**5 × 5 Marks = 25**

- 1.a) Explain briefly about design issues for layers in computer network. [5]
- b) What is bridge? What are the uses of bridges in computer network? [5]
- c) What is flooding? Explain it briefly. [5]
- d) Write the services of transport layer. [5]
- e) What is HTTP protocol? Describe its feature and header. [5]

PART - B**5 × 10 Marks = 50**

2. Explain TCP-IP reference model for computer network and compare it with OSI reference model. [10]

OR

- 3.a) Compare PAN, LAN and WAN.
- b) What are fiber optics media? Explain its advantages and compare with other guided media. [5+5]

- 4.a) Explain about Hamming code with an example.
- b) Give a note on wireless LANs. [5+5]

OR

5. What is simplex stop and wait protocol? Explain it for error free and noisy channel. [10]

- 6.a) Explain design issues of network layer.
- b) Write about packet fragmentation. [5+5]

OR

7. Elaborate congestion avoiding techniques in network layer. [10]

- 8.a) Write the feature TCP protocol.
- b) Explain Connection establishment technique in TCP. [5+5]

OR

- 9.a) Explain Performance issues of TCP.
- b) Describe Real Time Transport protocol. [5+5]

- 10.a) Describe Session Initiation protocol.
- b) Explain the features of JPEG video compression format. [5+5]

OR

11. Write notes on
a) Cookies b) Role of DNS in computer network. [5+5]