

Code No: 117BY**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year I Semester Examinations, November/December - 2017****COMPUTER NETWORKS****(Common to ECE, EIE, BME)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper 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**(25 Marks)**

- 1.a) What is CRC checker? [2]
- b) Write the advantages of layered architecture of network. [3]
- c) Define exponential Back off. [2]
- d) What is piggy backing? How does it useful? [3]
- e) Write the functions of LLC. [2]
- f) Write the responsibilities of network layer. [3]
- g) What is multiplexing? Give different types of multiplexing? [2]
- h) Write about Tunneling. [3]
- i) What is DNS? Write its properties. [2]
- j) Explain MIME header [3]

Part-B**(50 Marks)**

- 2.a) Compare TCP/IP and OSI reference model.
 - b) Explain about framing. [5+5]
- OR**
- 3.a) Explain stop and wait protocol.
 - b) Give a detail note on Hamming code. [5+5]
- 4.a) Explain CSMA/CD protocol and how does it detect collision?
 - b) Discuss about switched and fast Ethernet. [5+5]
- OR**
- 5.a) Explain MAC sub layer protocol in detail.
 - b) Discuss about spanning tree bridges. [5+5]
- 6.a) Explain link state routing algorithm in detail.
 - b) Write the optimality principle of routing algorithms. [5+5]
- OR**
- 7.a) Describe hierarchical routing algorithm in detail.
 - b) Write a note on load shedding. [5+5]

- 8.a) Explain IPV6 packet format.
b) Describe fragmentation in internet working with an example. [5+5]

OR

- 9.a) Explain Address resolution protocol in detail.
b) Write the principles of network layer in internet. [5+5]

- 10.a) Explain TCP sliding window protocol.
b) Give a detail note on HTTP request-response model. [5+5]

OR

- 11.a) Explain File transport protocol.
b) Compare TCP and UDP protocols. [5+5]

--ooOoo--