

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--