

Code No: 117BY**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year I Semester Examinations, April/May - 2018****COMPUTER NETWORKS****(Common to ECE, EIE)****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 Internet? [2]
- b) What are the advantages and disadvantages of optical fiber? [3]
- c) Mention the functions of Hub. [2]
- d) Explain why there is no need for CSMA/CD on a full duplex Ethernet LAN. [3]
- e) What is the purpose of subnetting? [2]
- f) What are the three main elements of distance vector routing algorithm? [3]
- g) Explain Tunneling. [2]
- h) Explain the socket primitive of TCP. [3]
- i) Explain the status codes of HTTP client error. [2]
- j) Compare HTTP and FTP. [3]

PART-B**(50 Marks)**

- 2.a) Explain about the sliding window protocol.
 - b) Distinguish between OSI and TCP/IP reference model. [5+5]
- OR**
- 3.a) Explain about the Go-Back-N ARQ protocol.
 - b) Explain checksum with an example. [5+5]
- 4.a) Explain about CSMA protocols.
 - b) Explain about the spanning tree bridge. [5+5]
- OR**
- 5.a) Explain about the IEEE 802.3 frame.
 - b) Explain about the types of bridges. [5+5]
- 6.a) Explain about the hierarchical routing algorithm.
 - b) Distinguish between connectionless and connection oriented networks. [5+5]
- OR**
- 7.a) Explain how congestion is controlled in network layer.
 - b) Explain the working of Packet Switched Networks. [5+5]

- 8.a) Explain the various steps that are followed in releasing a TCP connection.
b) Explain about ARP. [5+5]
- OR**
- 9.a) Draw a state diagram for simple connection management scheme.
b) Distinguish between IPv4 and IPv6. [5+5]
10. Discuss how simple mail transfer protocol works? Can multimedia messages be transmitted using SMTP? [10]
- OR**
- 11.a) Explain about the TCP timer management.
b) Explain the payload types of Real Time Transport Protocol. [5+5]

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