

**R13**

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]

AG AG AG AG AG AG AG A

AG 8.a) Explain the various steps that are followed in releasing a TCP connection. AG A  
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]

AG 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]

(

---ooOoo---

AG AG AG AG AG AG AG A

AG AG AG AG AG AG AG A

( AG AG AG AG AG AG AG A

AG AG AG AG AG AG AG A

AG AG AG AG AG AG AG A