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

8.a) Explain the various steps that are followed in releasing a TCP connection. [5+5]
b) Explain about ARP.

OR

9.a) Draw a state diagram for simple connection management scheme. [5+5]
b) Distinguish between IPv4 and IPv6.

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. [5+5]
b) Explain the payload types of Real Time Transport Protocol.

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