R15

Code No: 127BY

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year I Semester Examinations, November/December - 2018
COMPUTER NETWORKS
(Electronics and Communication Engineering)

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)	Write short notes on service and protocol.	[2]
b)	Write any four reasons for using layered protocols.	[3]
c)	What is a spanning tree bridge?	[2]
d)	Briefly define the features of protocol.	[3]
e)	What is congestion?	[2]
f)	Discuss various goals of routing algorithm.	[3]
g)	Discuss in brief about DHCP.	[2]
h)	Explain about IPv6 extension headers.	[3]
i)	Write down the advantages of FTP.	[2]
j)	Give the properties and applications of client-server model.	[3]

PART-B **(50 Marks)**

2.a)	Explain the different types of error detection methods.	
b)	Differentiate between OSI reference model and TCP/IP reference model.	[5+5]
	OR	
3.a)	What is the significance of twisting in twisted pair cable? What are the different categories of a twisted pair cables and their features.	
b)	Describe the stop and wait flow control technique.	[5+5]
4.a)	Describe the Ethernet MAC sublayer protocol.	
b)	Mention the five categories of connecting devices and explain in brief.	[5+5]
	OR	
5.	Write a short note on the following CSMA schemes. a) Non-persistent b) 1-persistent c) 0-persistent	[3+3+4]
6.a)	Explain the Dynamic Routing Algorithms in detail.	
b)	Explain the polices that effect Congestion.	[5+5]
	OR	
7.a)	Discuss about count to infinity problem.	
b)	Give the advantages of Hierarchical Routing.	[5+5]

8.a) Explain the functions of transport layer and the transport control mechanism.
b) Explain about Address Resolution Protocol. [5+5]

OR

9.a) How are connection establishment and crash recovery managed at the transport layer? Explain.
b) Explain about the IPv4 header format. [5+5]

10.a) Briefly describe the importance of each field of TCP header.
b) Explain how TCP controls congestion? [5+5]

OR

11.a) How does DNS perform name resolution? Explain with an example.
b) In E-mail system, where the E-mail messages are stored and why? [5+5]

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