Code No: 127BY

R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, May/June - 2019

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 the problems encountered in OSI reference model.	[2]
b)	What is the purpose of Hamming code?	[3]
c)	What is repeater?	[2]
d)	Define thin and thick Ethernet.	[3]
e)	What is congestion control?	[2]
f)	Explain briefly about flooding.	[3]
g)	What is crash recovery?	[2]
h)	What are the disadvantages of IPv4?	[3]
i)	Give the HTTP message format.	[2]
j)	What are the services offered by application layer?	[3]

Part-B **(50 Marks)**

2.a)	Explain various wired transmission media.	
b)	With a neat sketch, explain TCP reference model.	[5+5]
	OR	
3.a)	Explain HDLC protocol.	
b)	Write a note on Go-Back-N protocol.	[5+5]
4.a)	Describe ALOHA protocol in detail and give its disadvantages.	
b)	Elaborate learning bridges.	[5+5]
	OR	
5.a)	Explain pure Aloha and slotted Aloha.	
b)	Explain the frame format of Ethernet.	[5+5]
6.a)	Write the concept of distance vector routing and illustrate with an example.	
b)	Describe packet switching in detail.	[5+5]
	OR	
7.a)	Compare Virtual circuit and datagram networks.	
b)	Give a brief note on approaches of congestion control.	[5+5]

8.a) Describe packet fragmentation.

b) Explain dynamic host configuration protocol (DHCP). [5+5]

OR

9.a) Explain about the ARP.

b) Illustrate with an example three way hand shake protocol for connection establishment in transport layer. [5+5]

10.a) Describe TCP segment header.

b) Discuss about protocols used between mail transfer agents. [5+5]

OR

11.a) Explain about DNS.

b) Explain in detail slow-start congestion control technique in TCP. [5+5]

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