C. U. SHAH UNIVERSITY Winter Examination-2019

Subject Name: Computer Networks

Subject Code: 4TE05CNW1		: 4TE05CNW1	Branch: B.Tech (CE)	
Semeste	er: 5	Date: 16/11/2019	Time: 10:30 To 01:30	Marks: 70
(2) (3)	Use o Instru Draw	f Programmable calculator & an ctions written on main answer b neat diagrams and figures (if ne ne suitable data if needed.	•	rohibited.
Q-1		Attempt the following question	ons:	(14)
	a)	What is the purpose of preamble	le in Ethernet frame?	
	b)	Define Throughput for comput	er networks.	
	c)	Define super netting.		
	d)	What is MAC and IP address?		
	e)	Subnet mask 255.255.0.0 belor	ngs toclass.	
	f)	What is the Hamming distance	?	
	g)	Discuss Half duplex with exam	ple.	
	h)	For n devices in a network,	_ number of cable links required	in a mesh
		topology.		
	i)	What is framing?		
	j)	What is checksum in error dete	ection method?	
	k)	What is virtual circuit network	?	
	l)	Define tunneling.		
	m)	What is subnet mask?		
	n)	What is Protocol?		

Attempt any four questions from Q-2 to Q-8

Attempt all questions Q-2

What is a virtual circuit network? How it differs from circuit switching 07 a)



network. Discuss with example.

b) Differentiate between Connection oriented and Connectionless services. 07

Q-3 Attempt all questions

a)	Explain CSMA/CD protocol in detail.	07
b)	Write short note on DNS.	07

Q-4 Attempt all questions

a)	What is network topology? Explain different types of network topology.	07
b)	Explain CRC code generation with example.	07

Q-5 Attempt all questions

- a) Explain TCP segment structure and justify the importance of its field 07 values.
- b) Draw the layered architecture of OSI reference model and write the at 07 least two services provided by each layer of the model.

Q-6 Attempt all questions

a)	Discuss transport layer multiplexing and demultiplexing concepts.	07

b) Explain functionality of Bridge, Hub, Switch, Router, and Gateway. 07

Q-7 Attempt all questions

- a) What do you mean by congestion and overflow? Explain the slow-start 07 component of the TCP congestion-control algorithm.
- b) Explain IPv4 datagram format and importance of each field. 07

Q-8 Attempt all questions

a)	Explain Distance Vector routing with example.	
b)	Explain layered architecture of TCP/IP model and write service provided	07
	by at least two layer of the model.	

