

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV (NEW) - EXAMINATION – SUMMER 2018

Subject Code:2140709

Date:19/05/2018

Subject Name:Computer Networks

Time:10:30 AM to 01:00 PM

Total Marks: 70

Instructions:

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) Explain functionality of Repeater, HUB, Bridge, Switch, Router and Gateway.	03
	(b) Explain various delay which are occur in data packet transmission.	04
	(c) Draw the OSI reference model. Explain the functionality of each layer in brief.	07
Q.2	(a) Explain working of CSMA/CD protocol.	03
	(b) Show tunneling of IP v6 packet over IP v4 router network.	04
	(c) What is IP address ? Explain sub netting with example.	07
	OR	
	(c) What is subnet mask? Explain different classes of IP address.	07
Q.3	(a) Explain packet fragmentation with example.	03
	(b) Discuss transport layer multiplexing and De multiplexing concept.	04
	(c) What do you mean by random access protocols? Explain slotted ALOHA in brief	07
	OR	
Q.3	(a) Give differences between TCP and UDP.	03
	(b) With proper diagram explain throughput of network. How it differs from link transmission rate.	04
	(c) Explain RDT 2.0.	07
Q.4	(a) Explain CRC code generation using example.	03
	(b) What is bit and byte stuffing? Explain with example.	04
	(c) Describe Go Back N and Selective Repeat protocol.	07
	OR	
Q.4	(a) Explain Checksum generation using example.	03
	(b) How DHCP protocol works?	04
	(c) Explain dijkstra (Link state) routing algorithm.	07
Q.5	(a) Write a short note on DNS.	03
	(b) Write a short note on broadcast and multicast routing.	04
	(c) Explain Distance Vector routing with example.	07
	OR	
Q.5	(a) Explain differences between congestion control and flow control.	03
	(b) Write a short note on HTTP.	04
	(c) Explain NAT with example.	07
