Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA Integrated- SEMESTER– V EXAMINATION – SUMMER - 2017

Subject Code: 4450603 **Date: 03/05/ 2017**

Subject Name: Fundamentals of Networking

Time: 02:30 pm to 05:00 pm **Total Marks: 70**

Instructions:

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

Q.1 (a) Write any seven **07**

1. Write one disadvantage of layering scheme.
2. Full form of RED?
3. Explain Delayed Duplicate.
4. Explain fully qualified Domain Name
5. Why character count is not considered good technique for framing?
6. Explain Piggybacking.
7. What are two most important functions of the network layer?
8. Explain Bit Rate.
9. What is DNS poisoning?

(b) Explain any seven terms **07**

1. Partially qualified domain name
2. Difference between Persistent and Non persistent Connection
3. Define Microwaves.
4. What is admission control?
5. Selective repeat
6. A receiver window
7. Difference between OSI and TCP/IP
8. Difference between TCP and UDP
9. Difference between Connection oriented and Connection less Forwarding

Q.2 (a) Give difference between analog and digital signaling. **07**

(b) 1) Explain how phase modulation is performed using an example **07**
2) Write all tree types of errors and explain each one.

OR

(b) What is a Hidden station problem? How RTS and CTS help to resolve this problem? **07**

Q.3 (a) Write any two **07**

a. Explain how RTS-CTS exchange help solve exposed station problem
b. Show why FDM and TDM are not suitable for bursty data
c. Differentiate between Radio and Microwave

(b) Write any two **07**

a. Define Ethernet with its generation.
b. Explain with example the Hidden station problem
c. Give two important differences between 802.11a, b and g

OR

Q.3 (a) Write any two **07**

a. Explain the selective repeat protocol.
b. What is no monopoly idea? How framing helps?
c. Explain how flow control is performed at data link layer

(b) Write any two **07**

a. Explain the Go-Back-N protocol.
b. What should the receiver do when it receives a duplicate frame? Why?
c. Why redundancy is important for error handling?

Q.4 (a) what is congestion? Discuss congestion control techniques. **07**

	(b)	What is multicasting routing? How is it different than broadcasting?	**07**
		OR	
Q.4	**(a)**	Discuss CSMA/CD in details.	**07**
	(b)	What is the cause of count to infinity problem in distance vector routing?	**07**
Q.5	**(a)**	What is DNS? What is the primary purpose of DNS? What are the desirable properties of DNS?	**07**
	(b)	What is modulation? Explain any two types of modulation?	**07**
		OR	
Q.5	**(a)**	Explain different timers used in transport layer.	**07**
	(b)	Explain error correction technique with example.	**07**

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