Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER–V EXAMINATION – SUMMER 2017

Subject Code:2650010   **Date: 08-06-2017**
Subject Name: ADVANCED NETWORKING (AN)
Time: 02:30 pm - 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)**	What is class full addressing scheme? Explain in alliance with IPV4.	**07**
	(b)	What is sub netting and subnet mask? Explain sub netting of a network with proper example.	**07**
Q.2	**(a)**	Explain the concept of fragmentation giving suitable example.	**07**
	(b)	Explain IPV4 datagram format.	**07**

OR

	(b)	How Next- Hop Forwarding is done? Explain with proper example.	**07**
Q.3	**(a)**	Why do routers issue a route change request? Draw and explain the message format of ICMP redirect message.	**07**
	(b)	Draw the block diagram of UDP pseudo-header and explain its significance.	**07**

OR

Q.3	**(a)**	Explain three-way handshake process for establishing a TCP connection.	**07**
	(b)	What is VPN? How it is used? How it can be established?	**07**
Q.4	**(a)**	Explain creation of NAT translation table in detail.	**07**
	(b)	What is Management Information Base (MIB)? How MIB variable can be represented?	**07**
Q.4	**(a)**	What is MIME? How it is used? Which are the basic content types which can be supported by MIME?	**07**
	(b)	What is Simple Network Management Protocol (SNMP)? Explain SNMP message format in detail.	**07**
Q.5	**(a)**	Write a short note on DHCP. Also explain DHCP Message format.	**07**
	(b)	What is OpenFlow technology? Explain extensions and additions done in OpenFlow's version 1.1 in details.	**07**

OR

Q.5	**(a)**	What is the purpose of IP Security (IP Sec) protocol? Explain IPSec authentication header in detail.	**07**
	(b)	How the embedded systems are used in computer networks? Which are there challenges?	**07**

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