C.U.SHAH UNIVERSITY
Summer Examination-2017

Subject Name: Next Generation Networks

Subject Code: 4TE07NGN1   **Branch: B.Tech (IT)**

Semester: 7   **Date: 27/03/2017**   **Time: 02:30 To 05:30**   **Marks: 70**

Instructions:
(1) Use of Programmable calculator & any other electronic instrument is prohibited.
(2) Instructions written on main answer book are strictly to be obeyed.
(3) Draw neat diagrams and figures (if necessary) at right places.
(4) Assume suitable data if needed.

Q-1	**Attempt the following questions:**	**(14)**
a)	List key elements of protocol.	
b)	What is the main job of the ARP?	
c)	Define Socket.	
d)	What is subnet mask?	
e)	What is ICMP?	
f)	Define port for FTP, HTTPS.	
g)	Describe NAT.	
h)	What is range of Class C in IP?	
i)	What is the importance of implementing a Fault Tolerance System?	
j)	What is SMTP?	
k)	What is RIP?	
l)	Define I_Netd.	
m)	What protocols fall under the TCP/IP Internet Layer?	
n)	List application layer protocols.	

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

Q-2		**Attempt all questions**	
	a)	Explain IP Addressing Schema. Difference Between Classless and Classful Addressing.	**06**
	b)	Explain Header Datagram diagram BOOTP.	**04**
	c)	Explain TCP/IP Protocol Suit with Suitable diagram.	**04**
Q-3		**Attempt all questions**	
	a)	Explain OSPF with Suitable example.	**06**
	b)	Explain BGP with Suitable examples.	**04**
	c)	List difference between subneting and supeneting with example.	**04**
Q-4		**Attempt all questions**	
	a)	Explain in detail DVMRP and MBONE.	**06**
	b)	Explain Point to Point WAN.	**04**
	c)	List difference between inter-domain and intra-domain routing protocol.	**04**
Q-5		**Attempt all questions**	
	a)	Explain Transport Layer Service with suitable diagram. Also explain TCP header	**06**

in detail.

	b)	Explain State Transition diagram for Transport layer.	**04**
	c)	Write a Short Note on FTP.	**04**
Q-6		**Attempt all questions**	
	a)	Explain Syslog Procedure with suitable diagram.	**06**
	b)	Explain different system call used at server side sockets. Also explain fork ( ) system call.	**04**
	c)	Discuss checksum calculation at sender side. Also give suitable example for the same.	**04**
Q-7		**Attempt all questions**	
	a)	Define daemon process and describe how to create daemon process.	**06**
	b)	Explain in detail UDP package.	**04**
	c)	Explain Concurrent and Iterative Server using socket.	**04**
Q-8		**Attempt all questions**	
	a)	Explain Transition from IPv4 to Ipv6.	**06**
	b)	Explain Client Server Model with suitable diagram.	**04**
	c)	Explain ICMPv6 Error reporting.	**04**