Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E. SEMESTER III–EXAMINATION – WINTER 2015

Subject code: 2732302 **Date: 04/12/2015**

Subject Name: INTERNETWORKING AND APPLICATIONS

Time: 2:30 PM to 5:00 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)**	(i) Draw and explain two tier architecture. Also, state drawbacks of it.	**04**
		(ii) Explain xDSL technology in detail.	**03**
	(b)	What is DNS? Explain how it can be used to connect server.	**07**
Q.2	**(a)**	What is the need of ARP? Explain working of ARP using an example.	**07**
	(b)	Draw architecture of SMDS. Explain every component and interface of SMDS.	**07**
		OR	
	(b)	How ISDN can be used to provide data service? Explain BRI & PRI along with its sub channels in detail. Also state applications of ISDN.	**07**
Q.3	**(a)**	Differentiate IPv4 and IPv6 Protocols.	**07**
	(b)	Explain with diagram. 1) Table driven IP routing 2) Hierarchical Routing	**07**
		OR	
Q.3	**(a)**	What is IP datagram? Explain options of IP datagram in detail.	**07**
	(b)	What is virtual network? Give examples of it. Also explain unreliable delivery and connectionless delivery.	**07**
Q.4	**(a)**	Which properties should TCP possess to provide reliable delivery services? State the process to open and close a connection using TCP.	**07**
	(b)	(i) Discuss direct delivery in routing.	**04**
		(ii) Describe how socket programming is useful to connect server and client process.	**03**
		OR	
Q.4	**(a)**	Explain TCP segment format in detail.	**07**
	(b)	(i) Discuss indirect delivery in routing.	**04**
		(ii) Justify need of File Transfer Protocol.	**03**
Q.5	**(a)**	What is IDS? Explain working of IDS.	**07**
	(b)	Discuss need and working of simple network management protocol.	**07**
		OR	
Q.5	**(a)**	List types of IDS. Explain any two.	**07**
	(b)	Differentiate SMTP and POP.	**07**

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