Enrolment No.	
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## GUJARAT TECHNOLOGICAL UNIVERSITY M. E. - SEMESTER – I • EXAMINATION – WINTER • 2014

Su	bject	code: 3715202 Date: 07-01-2015	
	-	Name: Network Programming 2:30 pm - 05:00 pm Total Marks: 70	
	tructi	ons: Attempt all questions.	
		Figures to the right indicate full marks.	
Q.1	(a)	In case of UDP client ó server communication, if UDP server is not running, then what kind of error message client is going to receive? Justify your answer. What solution you would propose to handle õserver not runningö issue?	07
	(b)	What is system call? How it is differing from normal library function? Explain waitpid() system call.	07
Q.2	(a) (b)		07 07
	(b)	Explain in detail:	
		i. DHCP ii. DNS	04 03
Q.3	(a) (b)	Write a short note on Generic socket address structure. List out and explain byte manipulation functions.  OR	07 07
Q.3	(a)	Differentiate between:	
		<ul><li>i. Unicasting &amp; Broadcasting</li><li>ii. TCP &amp; UDP</li></ul>	03
	(b)		04 07
<b>Q.4</b>	(a)	What is Zombie process? How to handle zombie process? Explain with suitable	07
	(b)	example.  What is Inter Process Communication? List out various methods of IPC.  Differentiate between socket and IPC?	07
Q.4	(a)	OR When to use UDP instead of TCP? How can you be sure that a UDP message is	07
		received by recipient?	
	(b)	Explain libpcap and libnet libraries in detail	07
Q.5	(a)	Develop UDP server program to simulate the functionality of DNS server. (Here, client will send URL to the server, server contains list of URLs and associated IPs, server would respond to the client with appropriate IP address)	07
	(b)	While working on socket programming, why do we need to use byte ordering functions? Explain with suitable example.  OR	07
Q.5	(a) (b)	What is data link access? Explain Promiscuous mode in detail.  Explain serialization and deserialization in detail.	07 07

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