Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## M.E.- SEMESTER-I • EXAMINATION – WINTER 2013

Subject Code: 2715202 Date: 26-12		2013	
Tir	ne: 1 ructio 1. 2.	Attempt all questions.	<b>'0</b>
Q.1	(a) (b)	What is 'protocol'? Name at least three protocols in each layer of TCP/IP model. And describe their functionalities brief. Explain UDP header in detail.	07 07
Q.2	(a) (b)	Explain Internetworking Protocol (IP) in detail.  Explain in detail:  i. inet_addr  ii. htons  iii. memcpy	07 02 03 02
	<b>(b)</b>	OR Explain in detail:	
	(2)	i. FTP ii. Telnet	04 03
Q.3	(a) (b)	What is signal? Develop a C program to handle SIGINT signal.  Why do one get "connection refused" when the server isn't running?  OR	07 07
Q.3	(a) (b)	Differentiate between:  i. read() & recv()  ii. Little Endian & Big Endian  Explain TCP connection establishment and TCP connection termination process in detail.	02 05 07
Q.4	(a) (b)	What is socket? Explain its role over client and server programming. Describe the APIs for UDP communication.  Which socket APIs are needed in order to develop TCP server application?  What is the importance of listen () and accept () in those API?  OR	07 07
Q.4	(a)	Write a C program to Create 5 processes but not from the common parent. meaning, each child creates a new process. Cleanup the children using waitpid().	07
	<b>(b)</b>	Write a short note on "External Data Representation".	07
Q.5	(a) (b)	Explain in detail about pipe IPC with suitable program.  Explain multicast MAC address structure. What will be the destination MAC address if multicasting IP is 224.1.1.1? Explain in detail.	07 07
Q.5	(a) (b)	OR What is Ethernet? Draw and explain all fields of Ethernet header. When to use UDP instead of TCP? How can you be sure that a UDP message is received by recipient?	07 07

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