Enrolment No.
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## GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER II– EXAMINATION – WINTER - 2016 Subject Code: 2720213 Date: 21/11/ 2016				
Time: 2:30 pm to 5:00 pmTotal Marks: 70Instructions:Total Marks: 70				
	2. M	ake suitable assumptions wherever necessary.		
	3. Fi	gures to the right indicate full marks.		
0.1	<b>(a)</b>	Explain with diagram UNIX system architecture	07	
<b>V</b> .1	(u) (b)	What are the three primary functions used for process control?	07	
•	()		0.7	
Q.2	(a) (b)	Specify the concept of hard link and symbolic link in UNIX system	07	
	(D)	vol created a zombie process	07	
		OR		
	<b>(b)</b>	Explain signals in UNIX. List the conditions which can generate signals. How Unix	07	
		handles disposition of signals.		
0.3	<b>(a)</b>	Explain connection establishment and connection termination process using	07	
<b>L</b>	()	socket between a TCP server and client.		
	<b>(b)</b>	Demonstrate the syntax and use of the functions getsockopt(); setsockopt()	07	
		OR		
Q.3	<b>(a)</b>	Compare wait(), waitpid(), wait3() & wait4() functions	07	
	<b>(b)</b>	Write Unix domain program to use the sockets interface to establish a connection	07	
		and transmit data between client-server using TCP.		
Q.4	<b>(a)</b>	Write and explain the syntax of :	06	
		i. bcmp and memcmp ii. htons and htonl iii. bcopy and memcpy		
	<b>(b)</b>	Differentiate between Iterative and Concurrent server. Write a program	08	
		signifying the difference.		
0.4	$(\mathbf{a})$	OR Eveloin bill and using signal functions in detail for different aid values	06	
Q.4	(a) (b)	Explain Kill and raise signal functions in detail for different pid values. Write Unix domain program to use the sockets interface to establish a connection	00 08	
	(U)	and transmit data between client -server using UDP.	00	
05	$(\cdot)$		07	
Q.5	(a)	what is the purpose of DNS? Explain the different types of Resource Records	07	
	( <b>b</b> )	III DINS Explain byte manipulation functions in detail		
	(U)	Explain byte manipulation functions in detail.		
		OR		
Q.5	<b>(a)</b>	Describe dup and dup2 functions. Explain the equivalence of dup2 and fcntl	07	
	<i>.</i>	function		
	(b)	Write a Concurrent server program which uses TCP and display a status message of the Server before call to fork after fork and after socket closing by parent and child	07	
		Write a client to trigger the server operation.		

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