GUJARAT TECHNOLOGICAL UNIVERSITY M.E SEMESTER-I • EXAMINATION – WINTER 2013			
Subject Code: 2715302 Date: 26-Subject Name: OS Programming		Date: 26-12-2	2013
		Total Marks:	70
2. N	Q. no. 1 is compulsory and answers any FOUR questions from Q. Make suitable assumptions wherever necessary. Figures to the right hand indicate the marks.	No 2 to 6.	
b. Е с. Г	Explain various process states possible in unix/linux environment. Explain process life cycle in detail with suitable diagram. Define context switching with example and various reasons of cont What do you mean by thrashing? How to control thrashing?	ext switching.	[4 Marks] [3 Marks] [4 Marks] [3 Marks]
b. E	Explain various CPU scheduling algorithms with examples. Explain how thread creation is different from process creation. List out and explain any four pthread library API.		[7 Marks] [3 Marks] [4 Marks]
b. V	Give an example for race conditions.  What is a semaphore? Explain semaphore operation in detail was perations are different from semaphore operations?	rith an example	[7 Marks] e. How mutex [7 Marks]
•	<ul> <li>Vrite a short notes on following</li> <li>Interrupt handling</li> <li>System calls</li> <li>Compare and contrast shared memory, message queues, pipes used</li> </ul>	-	[3 Marks] [4 Marks] nmunication. [7 Marks]
S	Explain hard links and soft links with suitable examples. Explain oft links with in command. List out typical attributes of an inode. Explain in details unnamed	n the syntax of	creating hard, [7 Marks]

Seat No.: \_\_\_\_\_

Q. No. 6

Enrolment No.\_\_\_\_

[7 Marks] [7 Marks]

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a. Explain how excel system call is used to overwrite child workspace.b. What is a page fault? Explain page fault exception handler in detail?