C	T 1 . NT
Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI • EXAMINATION – SUMMER • 2014

Subject Code: 163101			Date: 30-05-2014
Tir	ne: 1	Attempt all questions. Make suitable assumptions wherever necessary.	
Q.1	(a) (b)	Draw and explain the block diagram of system kernel. Explain retrieval of buffer in detail.	07 07
Q.2	(a) (b)	Draw layered architecture of UNIX system and explain UNIX File system. Explain INODE and SUPER BLOCK in detail. OR	07 07
	(b)	Explain Block Read Ahead algorithm.	07
Q.3	(a) (b)	Explain algorithm for conversion of path name to an inode ("namei") What is system call? Explain Open system call. OR	07 07
Q.3	(a) (b)	Explain reading & writing of pipes. Explain the algorithm for ialloc for assigning new inodes.	
Q.4	(a) (b)	What is Signals? Explain the handling of Signals by Kernel. Explain Mounting & Unmounting of file system. OR	
Q.4	(a) (b)	What is Context of process? Explain Saving The Context of Process. Define System Boot process and write an algorithm for Booting the System.	
Q.5	(a) (b)	Write and explain fork algorithm. Explain process states and transition with necessary diagram. OR	
Q.5	(a) (b)	Explain Process Scheduling. Explain the following commands in Unix OS. 1) chmod (2) ls –ld (3) mkdir	07 07
