Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME- SEMESTER II– EXAMINATION – SUMMER 2015

Subject Code: 2725405 **Date:28/05/ 2015**

Subject Name: Embedded and Linux Programming

Time: 2:30 PM – 5:00 PM **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	What do you mean by Linux kernel configuration? Explain the steps in Linux kernel configuration.	**07**
	(b)	Discuss the features of Device Drivers.	**07**
Q.2	**(a)**	What is function parameter? Explain different types of parameters in C functions.	**07**
	(b)	Explain any five string manipulation library functions with suitable examples.	**07**
		OR	
	(b)	Explain loading, debugging and profiling.	**07**
Q.3	**(a)**	Describe various reasons to choose Linux Environment for Embedded System development	**07**
	(b)	Discuss various Host/Target Development set-up types.	**07**
		OR	
Q.3	**(a)**	What are various Host/Target debug setup? Discuss each one in detail.	**07**
	(b)	Explain Linux System, Embedded Linux System and Real time Embedded Linux System.	**07**
Q.4	**(a)**	Describe generic architecture for Embedded Linux System.	**07**
	(b)	Discuss various Buses you studied which are used for Embedded System development.	**07**
		OR	
Q.4	**(a)**	Write a short note on (1) Memory Technology Devices (2) serial port	**07**
	(b)	Write different steps involved for testing of Linux Device Driver.	**07**
Q.5	**(a)**	Explain the procedure to install a Boot loader in detail. Also discuss GRUB and LILO Boot Loader in brief.	**07**
	(b)	What do you mean by open source technology? Explain Ext2 and Ext3 file system.	**07**
		OR	
Q.5	**(a)**	What are the different types of device drivers? Discuss any two in detail.	**07**
	(b)	Write a short note on: (1) Squashfs (2) JFFS2 (3) Tmpfs	**07**

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