GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – I • EXAMINATION – WINTER • 2014

Subject code: 3715205   **Date: 12-01-2015**
Subject Name: Embedded C
Time: 02:30 pm - 05:00 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)**	Discuss the different phases of converting source code into executable binary image	**07**
	(b)	List out the ANSI C and C99 standards for programming languages.	**07**
Q.2	**(a)**	Write on the memory layout of a C program	**07**
	(b)	Explain command line arguments with an example program	**07**
		OR	
	(b)	Explain inline functions with an example program	**07**
Q.3	**(a)**	Write a C program that demonstrates use of call by value and call by reference	**07**
	(b)	What are the Environment variables? and Explain them	**07**
		OR	
Q.3	**(a)**	Write a program that uses string operations. Implement own logic for string operations	**07**
	(b)	Explain about string tables.	**07**
Q.4	**(a)**	Compare shallow copying and deep copying with suitable Example	**07**
	(b)	Give the list of preprocessor operators	**07**
		OR	
Q.4	**(a)**	Discuss use of unions with an example program	**07**
	(b)	Discuss dynamic memory allocation with an example program	**07**
Q.5	**(a)**	Explain about the register allocation and register storage class	**07**
	(b)	Explain about makefiles.	**07**
		OR	
Q.5	**(a)**	Write notes on Analysis of memory leaks and heap errors using valgrind.	**07**
	(b)	Explain about GNU tools -GCC, nm, objdump	**07**

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