

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- VIIth SEMESTER-EXAMINATION – MAY/JUNE- 2012

Subject code: 171005

Date: 29/05/2012

Subject Name: Embedded Systems

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) Describe the principal features of the ARM architecture in detail. **07**
(b) Compare the microprocessor, microcontroller, and single purpose processors and gives their application example in day to day life. **07**

- Q.2** (a) List the IO types and explain any two types in detail. **07**
(b) Give the difference between RISC and CICS processors. **07**

OR

- (b) Write a short note on 3-stage pipeline ARM organization. **07**

- Q.3** (a) Give the detail of kernel functions in an OS. What can be the function outside the kernel? **07**
(b) Write a short note on Real-Time Operating System and its services. **07**

OR

- Q.3** (a) Write a short note on hyper text transfer protocol. **07**
(b) Discuss the OS security issues and give important security functions OS should carried out. **07**

- Q.4** (a) Write a short note on CAN Bus. **07**
(b) Give detail characteristics of the Functions, ISR, and Task. **07**

OR

- Q.4** (a) Give the various methods of saving and optimizing the power needs. **07**
(b) Explain data processing instruction execution in ARM processor. **07**

- Q.5** (a) Write a short note on use of Socket function. **07**
(b) Explain the concept of condition execution in ARM processor. With compare to any other processor in what way it is differ. **07**

OR

- Q.5** (a) Give the properties of thumb instructions in ARM processor. **07**
(b) Write about a design process steps in embedded system. **07**
