Name: Id#

COE 306, Term 161

Introduction to Embedded Systems

Quiz# 1

Date: Tuesday, Oct. 11, 2016

# **Q1.** List three characteristics of embedded systems.

# **Q2.** List the steps followed in the embedded system design process.

# **Q3.** Explain the difference between functional and non-functional requirements and give an example of each.

# **Q4.** Briefly explain the main difference between requirements and specification.

# **Q5.** List two challenges in embedded system design.

**Q6.** Consider the design of an embedded thermostat system. The system should regulate the temperature of a house. Suppose electronic temperature gauges will be deployed throughout the house to provide the system with a temperature map so that it can properly adjust heating and cooling systems on a per-room basis. The electronic temperature gauges will act as I/O devices in the system. Discuss how the information on the design of the electronic temperature gauges will affect how they are integrated into the system and may be useful in refining the architectural design.