

Name:

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COE 306, Term 171

Introduction to Embedded Systems

Quiz# 2

Date: Tuesday, Oct. 24, 2017

Q1. Consider the C code given below:

```
volatile static int Array[10] = {75,20,50,40,55,60,10,85,100,90};
int Max=Array[0];
int Min=Array[0];

for (int i=1; i<10; i++)
    if (Array[i]<Min)
        Min = Array[i];
    else if (Array[i] > Max)
        Max = Array[i];
```

Implement the given C code using minimum number of ARM assembly instructions.

Q2. Determine the content of register 0x27 after executing the following PIC16F assembly code:

```
    MOVLW 0xA7
    MOVWF 0x25
    MOVLW 4
    MOVWF 0x26
    CLRF 0x27
NEXT MOVF 0x25, w
    ANDLW 3
    ADDWF 0x27, f
    RRF 0x25, f
    RRF 0x25, f
    DECFSZ 0x26
    GOTO NEXT
```