Lab 7, 8 Tasks Weightage: 4.00

1. Translate the following C++ like code into Assembly Language.

```
int a,b,c,d,eq,ls,gr,count;
a = 16;
b = 32;
c = 64;
d = 64;
e = a + b;
if(e==d)
      eq = 1;
else
      eq = 0;
if(e>d)
      gr = 1;
else
      gr = 0;
if(e<d)
      ls = 1;
else
      ls = 0;
            while(e!=d)
            {
                  Count++;
            }
      Cout<<"e is "<<count<<"times less than d"<<endl;
```

2. Create an array of size 10 and initialize it with user input values. Your task is to;
   a. Find the Maximum & Minimum values.
   b. Find the 3rd Maximum & 3rd Minimum values.
   c. Sort the array using bubble sort algorithm.
3.

Using the following table as a guide, write a program that asks the user to enter an integer test score between 0 and 100. The program should display the appropriate letter grade:

Score Range	Letter Grade
90 to 100	A
80 to 89	B
70 to 79	C
60 to 69	D
0 to 59	F

Note: Don't use if else directives. Only use **cmp instruction** with jump related instructions.
Remember: All conditional jump instructions which we studied in this lab are related with CMP Instruction i.e.

```
CMP   AL, BL
JE EQUAL

CMP   AL, BH
JNE ABOVE

ABOVE:
EQUAL:
```