LAB EXERCISE 1
TOPIC 1: PROGRAMMING PROBLEM SOLVING

NAME:
MATRIC NO:
SECTION:

QUESTION 1 **[5 Marks]**

Based on the following pseudocode in **Figure 1**, complete the trace table given in **Table 1**.

```
1. START
2. READ n, m
3. IF (n > = m)
   3.1 START_IF
      3.1.1   IF (n > 10)
         3.1.1.1 START_IF
            3.1.1.1.1   IF (m> 10)
               3.1.1.1.1.1 START_IF
                  3.1.1.1.1.1.1   PRINT "both n and m is greater than 10"
               3.1.1.1.1.2 END_IF
            3.1.1.1.2   IF (n = = m)
               3.1.1.1.2.1 START_IF
                     3.1.1.1.2.1.1.1 PRINT "n is equal to m"
               3.1.1.1.2.2 END_IF
         3.1.1.2 END_IF
   3.2 END_IF
4. ELSE
   4.1 PRINT (n-m)*2
5. PRINT n, m
6. END
```

Figure 1

ANSWER:

Table 1

n	m	Output
0	0	
10	0	
20	10	
20	20	
0	10	

QUESTION 2 **[20 Marks]**

Write a pseudo code for a program that will implement the following decision table in **Table 2**. The program will print the input grade point and the class of degree based on a user input. The program will terminate the loop when a user input a sentinel value other than 'y' or 'Y'.

Table 2

GRADE POINT	Class of Degree
0.0 – 0.99	Failed
1.0 – 2.00	General degree
2.1 – 2.7	Second class lower
2.71 – 3.69	Second class upper
3.7 – 4.00	First Class

ANSWER: