

# Department of Electrical Engineering

## Mid – Term Assignment Spring 2020

Date: 25/06/2020

### Course Details

Course Title: Programming Fundamentals

Module: 02

Instructor: Engineer Muhammad Waqas

Total Marks: 50

### Student Details

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Q1.	(a)	<p>Write Python code that asks the user for two integer values, it must then add the largest number times the smallest. The output should be in the following manner.</p> <p style="text-align: center;">Enter Number 1 : 5 Enter Number 2 : 3 Answer = 5+5+5 = 120</p> <pre>a = int(input("Enter number 1: ")) b = int(input("Enter number 2: "))  sum = 0 if a&gt;b:     for x in range(b):         sum=a+sum      print("Answer: ", sum) else:     for x in range(a):         sum=b+sum  print("Answer:", sum)</pre>	Marks 5 CLO 1
	(b)	<p>You are asked to make a times table program in Python where a user will enter starting value, ending value and the value to find the times table for. For example</p> <p style="text-align: center;">Input Starting Value : 2 Input Ending Value : 4 Input Times Table : 4 4 x 2 = 8 4 x 3 = 12 4 x 4 = 16</p> <pre>startNum= int(input("Enter number 1: ")) endNum= int(input("Enter number 2: ")) tableNum= int(input("Enter number 3: "))  for x in range(startNum, endNum+1):     ans = tableNum*x     print(tableNum, "x", x, "=", ans)</pre>	Marks 5 CLO 1

Q2.	<p>(a) Write programs in Python to make the following shapes using LOOPS,</p> <p>a)       *****           *****           *****</p> <p>for a in range(3):   print("*****")</p> <p>b)       *          **          ***          ****          *****</p> <p>for x in range(6):   print("*"*x)</p>	<p>Marks 14 CLO 1</p>
Q3.	<p>(a) Write a program in Python where a user is asked for 10 numbers, each number must be shown as ODD or EVEN respectively.</p> <pre>lis = [] for x in range(10): numbr = int(input("Enter a number : ")) lis.append(numbr)  for num in lis:   if num % 2 == 0:     print("EVEN")    else:     print("ODD")</pre>	<p>Marks 3 CLO 1</p>
	<p>(b) You have the following python code, draw the flow chart of the whole code</p> <pre>nterms = int(input("How many terms? ")) n1, n2 = 0, 1 count = 0 if nterms &lt;= 0:   print("Please enter a positive integer") elif nterms == 1:   print("Fibonacci sequence upto", nterms, ":")   print(n1) else:   print("Fibonacci sequence:")   while count &lt; nterms:     print(n1)     nth = n1 + n2     n1 = n2     n2 = nth     count += 1</pre> <p>Q.3 Part. (b)</p> <pre>nterms = int(input("How many terms? "))  # first two terms n1, n2 = 0, 1 count = 0  # check if the number of terms is valid if nterms &lt;= 0:   print("Please enter a positive integer") elif nterms == 1:   print("Fibonacci sequence upto", nterms, ":")   print(n1)</pre>	<p>Marks 3 CLO 1</p>

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else:  
    print("Fibonacci sequence:")  
    while count < nterms:  
        print(n1)  
        nth = n1 + n2  
        # update values  
        n1 = n2  
        n2 = nth  
        count += 1
```



