

**Department of Electrical Engineering**  
**Mid – Term Assignment Spring 2020**

Date: 13/04/2020

Course Details

Course Title: Programming Fundamentals Module: 02  
Instructor: Eng. Muhammad waqas Total Marks: 30

Student Details

Name: M.salman nasir Student ID: 16664

Q1.	(a)	Write a program in python where you input two integer values from user and determine if the first integer is the multiple of the second integer.	Marks 5 CLO 1
	(b)	Write a program in python for a shopping mall to determine if the customer has exceeded the credit limit on a charge account. Program should input the following facts in five variables 1. Account number 2. Balance at the beginning of month (Beginning balance) 3. total of all items charged by customer this month (charges) 4. total of all credits (credits) 5. allowed credit limit Calculate the new balance New balance = Beginning balance + charges – credits Your program must determine if the new balance exceeds the allowed credit limit. If credit limit is exceeded then program should display the message “Credit Limit exceeded.”	Marks 5 CLO 1
Q2.	(a)	1. Steps that involve precise sequence to solve a problem is called a. Statement b. Program c. Utility d. Routine	Marks 14 CLO 1
		2. In an if structure statements are executed only, a. When the condition is false b. When it contain arithmetic operators c. When it contain logical operators d. When the condition is true	
Q3.	(a)	Write a program in python that will create and display the following series in the output using the formula $2x^2 - 3x$ : 65, 44, 27, 14, 5, 0, -1, 2, 9, 20	Marks 2 CLO 1
	(b)	You have the following python code, draw the flow chart of the whole code numbers = range(10,20) sum = 0 for i in numbers: sum = sum + i print("Total Sum = ", sum)	Marks 3 CLO 1

(1)

Date: \_\_\_\_\_

Question: No 1:-

part A:-

In order to get input from user we used function "input". and for integer we used function "int".

For example:

If we want to get integer in input we use function.

```
num1 = int(input("Enter number"))
```

Here in this question we have to get two input from user and also show that first number is multiple of second number.

Multiple:

A Multiple of a number is an product of that number and an integer.

E.g multiple of 4 includes  $4 \times 0, 4 \times 1, 4 \times 2, \dots, 4 \times n$ .

Now the required ~~program~~ <sup>program</sup> for this question is bellow.

(2)

Date: \_\_\_\_\_

```
num1 = int(input("Enter 1st number : "))
```

```
num2 = int(input("Enter 2nd number : "))
```

```
IF num1 % num2 == 0 :
```

```
print (num1, " is The multiple of ", num2 )
```

```
else:
```

```
print (num1, " is not a multiple  
of ", num2 )
```

For example:-

IF we enter num1 = 8 and num2 = 2 then it show num1 is multiple of num2 but when we enter num2 = 7 then it show num1 is not a multiple of num2.

x — x — x — x — x — x — x — x

p - T - 0

(3)

Date: Q # 1

Part # B

Part B:

The required ~~program~~ program for shopping mall, having input

(i) Account number

(ii) Balance at the beginning of the month

(iii) total of all items charged by customer this ~~month~~ month.

(iv) total of all credits

(v) allowed credit limit.

is follow.

```
Print ("python program")
```

```
ac = int(input("please Enter Account number:"))
```

```
ba = int(input("please Enter your
```

```
blance (at the beginning of month):"))
```

```
tc = int(input("please Enter total of all charges used in this month:"))
```

(4)

Date: \_\_\_\_\_

```
tcc = int (input (" please Enter total of  
All Credits :"))
```

```
acl = int (input (" please Enter credit  
Limit :"))
```

```
new = ba + tc - tcc
```

```
IF new > acl  
    print (" Credit limit exceeded.")
```

```
ELSE :
```

```
    print (" Your New blance  
is :", new)
```

```
print (" END Program")
```

\* \* — \* — \* — \* — \*

~~Next~~ P-T-0

(5)

Date: \_\_\_\_\_

## Question no 2:-

- (i) Steps that involve precise sequence to solve a problem is called ~~(a)~~ ~~(b)~~ (c) Program.
- (ii) In an IF structure statement are executed only. ~~(a) when the condition is true~~ (d) when the condition is true.
- (iii) Which of the following can not be a variable name? (c) 10area.
- ~~(iv) Which of the following~~  
(iv) Which loop process is best when the number of iterations is known (a) For
- (v) Which special character is in the end of a string to indicate the end (c) null
- (vi) A total of 22 bytes are occupied by `txt = "Programming Fundamentals"`
- (vii) Commenting the code understand:  
(a.) Make a program easy to understand.

(6)

Date: \_\_\_\_\_

### Question 3:-

#### A Prog:-

import math

```
def p(d1, k):
```

```
    c = d1
```

```
    print("Domain interval=", d1, k)
```

```
    print("Domain", ' |t', "Range")
```

```
    while c < k
```

```
        c = c + 1
```

```
        d = c
```

```
        x = F(d)
```

```
        print(d, ' |t', x)
```

```
    # d := domain
```

```
    # r := range
```

```
def F(x):
```

$$y = 2 * (x ** 2) - (3 * x)$$

```
    return y.
```

Now here put put Domain

$P(d1, k) = P(-5, 5)$  in order to

print or display the series

of out put 65, 44, 27, 14, 5, 0, -1, 2, 9, 20

\* — \*

———— \*

———— \* —

\* — \*

Date

Q #3

(7)

Part (B).

Part B:

The required Flow chart For  
The code:-

```
number = range (10,20)
```

```
sum = 0
```

```
for
```

```
    i in number
```

```
        sum = sum + i
```

```
print ("total sum =", sum)
```

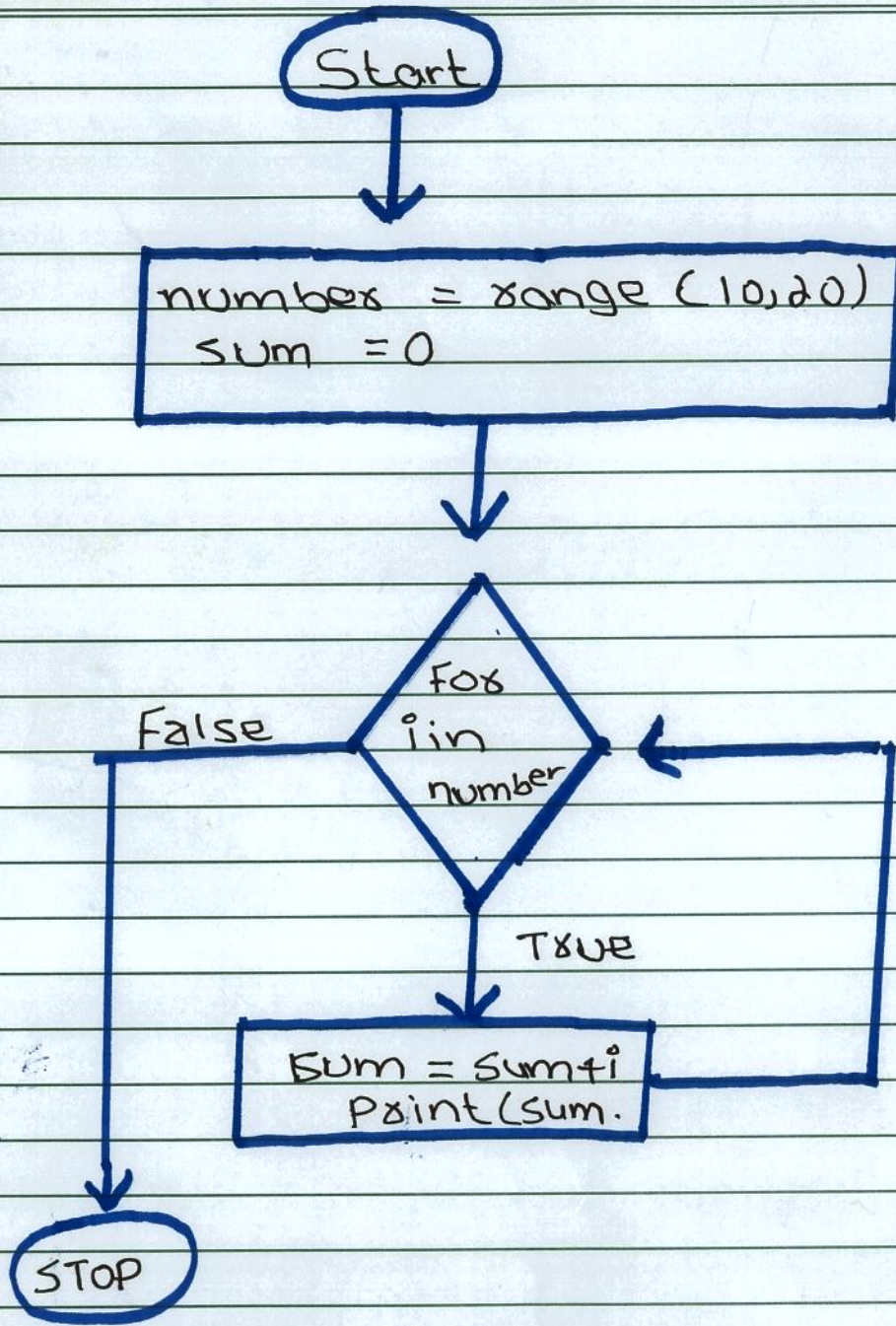
will be follow.

P-T-0



(8)

Date: \_\_\_\_\_



x — x      — \*      — \*      — x

THE END.