

Department of Electrical Engineering
Mid – Term Assignment Spring 2020

Date: 13/04/2020

Course Details

Course Title:	Programming Fundamentals	Module:	02
Instructor:		Total Marks:	30

Student Details

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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
	(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)	Marks 5 CLO 1

	<p>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."</p>	
<p>Q2.</p>	<p>(a)</p> <ol style="list-style-type: none"> Steps that involve precise sequence to solve a problem is called <ol style="list-style-type: none"> Statement Program Utility Routine In an if structure statements are executed only, <ol style="list-style-type: none"> When the condition is false When it contain arithmetic operators When it contain logical operators When the condition is true Which of the following can not be a variable name? <ol style="list-style-type: none"> area _area 10area area? Which loop process is best when the number of iterations is known? <ol style="list-style-type: none"> for while again all looping processes require that the iterations be known Which special character is in the end of a string to indicate the end? <ol style="list-style-type: none"> new line tab null carriage return A total of _____ bytes are occupied by the following variable. txt = "programming fundamentals" Commenting the code _____ <ol style="list-style-type: none"> Makes a Make programs better i.e more 	<p>Marks 14</p> <p>CLO 1</p>

		understand for others. c. Makes it difficult to compile	space is needed for executable. d. All of the given options	
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
	(b)	You have the following python code, draw the flow chart of the whole code <pre> numbers = range(10,20) sum = 0 for i in numbers: sum = sum + i print("Total Sum = ", sum) </pre>		CLO 1
				Marks 3
				CLO 1

Q. Write a program where you input two integers value from user and determine if the 1st integer is multiple of second integer. (1)

Ans =

```
A = int(input("Enter 1st value"))
```

```
B = int(input("Enter 2nd value"))
```

```
if A != 0 & (B % A) == 0:
```

```
    print("True")
```

```
else
```

```
    print("false")
```


Q (b) write a programme for a shopping mall if the customer has exceeded the credit limit on a change account. Input the following data:

- (1) Account Number
- (2) Beginning Balance
- (3) Charges
- (4) Credits
- (5) Credit Limit

Sol
#

```
An = int(input("Enter Account Number plz"))
```

```
Bb = int(input("Enter Customer Balance"))
```

```
Chr = int(input("Total charges"))
```

```
Credits = int(input("Enter Credits plz"))
```

```
Cl = int(input("Allowed Credit Limit"))
```

```
NewBal = int(Bb + Chr - Credits)
```

```
if (NewBal > Cl):
```

```
    print("Credit limit exceeded")
```

```
else
```

```
    print("Everything is OK")
```

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Q2

MCQ's

- ① Programme
- ② when the condition is true
- ③ IO area
- ④ for loop
- ⑤ null
- ⑥ 96bit
- ⑦ Make a program easy to understand

* Ali Raza Khan 12647 * (4)
Q3(a) = write a programme in python that will create and display the following series using formula $2x^2 - 3x$.
[65, 44, 27, 14, 5, 0, -1, 2, 9, 20]

Sol
#

$$a = -5$$

$$x = 2 * a * a - 3 * a$$

Print (x)

$$a = -4$$

$$x = 2 * a * a - 3 * a$$

Print (x)

$$a = -3$$

$$x = 2 * a * a - 3 * a$$

Print (x)

$$a = -2$$

$$x = 2 * a * a - 3 * a$$

Print (x)

$$a = -1$$

$$x = 2 * a * a - 3 * a$$

Print (x)

$$a = 0$$

$$x = 2 * a * a - 3 * a$$

Print (x)

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(5)

$$a = 1$$

$$x = 2 * a * a - 3 * a$$

Print (x)

$$a = 2$$

$$x = 2 * a * a - 3 * a$$

Print (x)

$$a = 3$$

$$x = 2 * a * a - 3 * a$$

Print (x)

$$a = 4$$

$$x = 2 * a * a - 3 * a$$

Print (x)

Q3(b)

Flow Chart

