

Department of Electrical Engineering

Mid – Term Assignment Spring 2020

Date: 25/06/2020

Course Details

Course Title: Programming Fundamentals
Instructor: sir waqas

Module: 02
Total Marks: 50

Student Details

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Student ID: 16194

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|-----|-----|--|-------------------|
| Q1. | (a) | 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. <div style="text-align: center;"> Enter Number 1 : 5 Enter Number 2 : 3 Answer = 5+5+5 = 15 </div> | Marks 5 CLO 1 |
| | (b) | 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 <div 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 </div> | Marks 5 CLO 1 |
| Q2. | (a) | Write programs in Python to make the following shapes using LOOPS, a) ***** ***** ***** b) * ** *** **** ***** | Marks 14 CLO 1 |
| | (a) | Write a program in Python where a user is asked for 10 numbers, each number must be shown as ODD or EVEN respectively. | Marks 3 CLO 1 |
| Q3. | (b) | You have the following python code, draw the flow chart of the whole code <pre> nterms = int(input("How many terms? ")) n1, n2 = 0, 1 count = 0 if nterms <= 0: print("Please enter a positive integer") elif nterms == 1: print("Fibonacci sequence upto",nterms,":") print(n1) else: print("Fibonacci sequence:") while count < nterms: print(n1) nth = n1 + n2 n1 = n2 n2 = nth </pre> | Marks 3 CLO 1 |

| | | | |
|--|--|------------|--|
| | | count += 1 | |
|--|--|------------|--|

fhg.py - C:/Users/PUBG PC/AppData/Lo

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```
#Q 1. Part (a)
```

```
a = int(input("Enter number 1: "))
```

```
b = int(input("Enter number 2: "))
```

```
sum = 0
```

```
if a > b:
```

```
    for x in range(b):
```

```
        sum = a + sum
```

```
    print("Answer: ", sum)
```

```
else:
```

```
    for x in range(a):
```

```
        sum = b + sum
```

```
    print("Answer:", sum)
```

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Python 3.8.3rc1 (tags/v3.8.3rc1
it (AMD64)] on win32

Type "help", "copyright", "credi

>>>

==== RESTART: C:/Users/PUBG PC/A

Enter number 1: 4

Enter number 2: 3

Answer: 12

>>>

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x +

gf.py - C:/Users/PUBG PC/AppData/Local/Program

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#Q.1 Part (b)

```
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)
```

atsApp

x

+

*Python

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Python 3.8.3rc1 (tags/v3.8.3rc1:802eb
it (AMD64)] on win32

Type "help", "copyright", "credits" or
>>>

==== RESTART: C:/Users/PUBG PC/AppData

Enter number 1: 3

Enter number 2: 2

Enter number 3: 4

I

```
gf.py - C:/Users/PUBG PC/AppData/Local/Programs/Python/Python38/gf.py (3.8...
File Edit Format Run Options Window Help
#Q NO 2
#ANs
rows = int(input("Please Enter the Total Number of Rows : "))
columns = int(input("Please Enter the Total Number of Columns : "))

print("Rectangle Star Pattern")
for i in range(rows):
    for j in range(columns):
        print('*', end = ' ')
    print()
```

```
Python 3.8.3rc1 (tags/v3.8.3rc1:802eb67, Apr 29 2020, 21:39:14) [MSC v.1924 64
it (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:/Users/PUBG PC/AppData/Local/Programs/Python/Python38/gf.py ====
Please Enter the Total Number of Rows : 3
Please Enter the Total Number of Columns : 6
Rectangle Star Pattern
* * * * *
* * * * *
* * * * *
>>> |
```

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Insert

Page Layout

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gf.py - C:/Users/PUBG PC/AppData/Local/Programs/Python

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```
#Qno 2 :part b
```

```
#ANS:
```

```
def triangle(n):
```

```
    # number of spaces
```

```
    k = 2*n - 2
```

```
    # outer loop to handle number of rows
    for i in range(0, n):
```

```
        for j in range(0, k):
            print(end=" ")
```

```
        # decrementing k after each loop
        k = k - 1
```

```
        for j in range(0, i+1):
```

```
            # printing stars
            print("* ", end="")
```

```
        # ending line after each row
        print("\r")
```

```
# Driver Code
```

```
n = 5
```

```
triangle(n)
```

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Python

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Python 3.8.3rc1 (tags/v3.8.3rc1:802eb67
it (AMD64)] on win32

Type "help", "copyright", "credits" or
>>>

==== RESTART: C:/Users/PUBG PC/AppData/

```
      *
     * *
    * * *
   * * * *
  * * * * *
```

>>> |

*gf.py - C:/Users/PUBG PC/AppData/Local/Programs/Python/Python38-64/Python.exe

```
#Q no 3 (a) :  
#ANS:  
  
a=[]  
n=int(input("Enter number of elements:"))  
for i in range(1,n+1):  
    b=int(input("Enter element:"))  
    a.append(b)  
even=[]  
odd=[]  
for j in a:  
    if(j%2==0):  
        even.append(j)  
    else:  
        odd.append(j)  
print("The even list",even)  
print("The odd list",odd)
```

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Python 3.8.3rc1 (tags/v3.8.3rc1:802eb67,
it (AMD64)] on win32

Type "help", "copyright", "credits" or "
>>>

==== RESTART: C:/Users/PUBG PC/AppData/Lo

Enter number of elements:10

Enter element:4

Enter element:9

Enter element:76

Enter element:456

Enter element:76

Enter element:8

Enter element:3

Enter element:67

Enter element:6

Enter element:3

The even list [4, 76, 456, 76, 8, 6]

The odd list [9, 3, 67, 3]

>>> |

Flow Chart 21-



