**Assignment 1: PYTHON BASICS**

**Submission**

**1.Programming Questions:**

**A..Write a python program to find the area of triangle given height and base of the triangle as 3 and 10.**

def area\_of\_triangle(height,base):

**#Area of the triangle A= 1/2(base \* height)**

area = 1/2\*height\*base

return area

**#given height=3 and base =10**

height = 3

base = 10

result = area\_of\_triangle(height,base)

print(result)

**B.Write a python program to extract an item or a range of items from a list**

a = [15,20,35,40,45,30,35,60]

**# Print the item at index 2**

print(a[2])

**# Print the first 3 items**

print(a[:3])

**# Print the last 3 items**

print(a[-3:])

**# Start to third last item**

print(a[:-2])

**C.Converting list to Tuples**

myList = ['request', 'source', 'repository', 'branch']

**# Print myList to a Tuple**

print(tuple(myList))

**D.Python program to Remove duplicates from a list.**

a = [10,20,30,40,50,60,70]

**#can be done using set**

print(list(set(a)))

**#can be done using dict**

print(list(dict.fromkeys(a)))

**2. Multiple Choice Questions:**

**A.What is the output of the following program :**

**print "Python Basics"[::-1]**

* scisaB nothyP
* Basics nohtyP
* scisaB nohtyP
* nohtyP

**B. Which module in Python support regular expressions?**

* re
* regex
* Pyregex
* None of the above

**C.Which of the following is correct about python?**

* It supports automatic garbage collection
* It can be easily integrated with C,C++,COM,ActiveX, CORBA, nd Java
* Both of the above
* None of the above

**D.What is the output of the following program?**

**T=’Machine’**

**a,b,c,d,e,f,g=T**

**b=c=d=g=’\*’**

**T=(a,b,c,d,e,f,g)**

**print(T)**

* (‘M’,’\*’,’\*’,’h’,’i’,’n’,’e’)
* (‘M’,’\*’,’\*’,’\*’,’i’,’n’,’\*’)
* (‘Machine’,’\*’,’\*’,’\*’,’\*’)
* None of the above

**E.What is the value of L at the end of execution of the following program?**

**L = [2e-04, 'a', False, 87]**

**T = (6.22, 'boy', True, 554)**

**for i in range(len(L)):**

**if L[i]:**

**L[i] = L[i] + T[i]**

**else:**

**T[i] = L[i] + T[i]**

**break**

* 6.222e-04, ‘aboy’, True, 641]
* [6.2202, ‘aboy’, 1, 641]
* TypeError
* [6.2202, ‘aboy’, False, 87]

**F.What is the output of the following program?**

**line = "I'll come by then."**

**eline = ""**

**for i in line:**

**eline += chr(ord(i)+3)**

**print(eline)**

* L\*oo frph e| wkhq1
* L\*oo#frph#e|#wkhq1
* l\*oo@frph@e|$wkhq1
* O\*oo#Frph#E|#wKhq1

**G.What is the output of the following?**

**i = 1**

**while True:**

**if i %999999999 == 0:**

**break**

**print(i)**

**i + = 1**

* 1 2 3.
* 1 2.
* Syntax Error.
* None of these

**H. What is the output of the code:**

**mylist =[0, 5, 2, 0, 'gfg', '', []]**

**print(list(filter(bool, mylist)))**

* [0, 0, ]
* [0, 5, 2, 0, ‘gfg’, ”, []]
* Error
* [5, 2, ‘gfg’]

I.**Which of the options below could possibly be the output of the following program?**

**D = {1 : [1, 2, 3], 2: (4, 6, 8)}**

**D[1].append(4)**

**print(D[1], end = " ")**

**L = [D[2]]**

**L.append(10)**

**D[2] = tuple(L)**

**print(D[2])**

* [1, 2, 3, 4] [4, 6, 8, 10]
* [1, 2, 3, 4] ((4, 6, 8), 10)
* ‘[1, 2, 3, 4] TypeError: tuples are immutable
* [1, 2, 3, 4] (4, 6, 8, 10)

**J.What is the output of the following program?**

**data = 50**

**try:**

**data = data/0**

**except ZeroDivisionError:**

**print('Cannot divide by 0 ', end = '')**

**else:**

**print('Division successful ', end = '')**

**try:**

**data = data/5**

**except:**

**print('Inside except block ', end = '')**

**else:**

**print('GFG', end = '')**

* Cannot divide by 0 GFG
* Cannot divide by 0
* Cannot divide by 0 Inside except block GFG
* Cannot divide by 0 Inside except block