

Set-A
Batch-2

FIRST SEMESTER MCA (2020 SCHEME)
PRACTICAL EXAMINATION JUNE-JULY 2021
20MCA131 PROGRAMMING LAB

Regn - ICE 20MCA
2025

Date: 2 July 2021

Time: 1:00-4:30

1) List Ordinal value of each element of a word

```
list1 = ['shee', 'lee', 'veshi']
```

```
print ("The original list: \n" + str(list1))
```

```
res = [ord(ele) for sub in list1 for ele in sub]
```

```
print ("The ascii list is: \n" + str(res))
```

Output

The original list:

```
['shee', 'lee', 'veshi']
```

The ascii list:

```
[115, 104, 101, 108, 101, 101, 114, 101, 115, 104, 105]
```

Flowchart

24

Step1: Start

Step2: List some words

Step3: Print the original list

Step4: ~~Original~~ Ordinal elements for sub in list 1 for element
in sub

Step5: Print the ascii list

Step6: Stop

- 2) Create a package Graphics with modules: rectangle, circle and sub package 2DGraphics with modules: cuboid and sphere. Include methods to find the area and perimeter of respective figures in each module. Write a program that finds area and perimeter of figures by different importing statements.

Circle.py

circle area

def Area(r):

result = 3.14 * r * r

return result

circle perimeter

def Perimeter(r):

result = 2 * 3.14 * r

return result

Cuboid.py

area of cuboid

def AreaCuboid(l):

result = 6 * l * l

return result

perimeter of cuboid

def PerCuboid(l, b, h):

result = 4 * (l + b + h)

return result

Rectangle APFunction.py

Area of rectangle
def RArea(w, l):

result = w * l

return result

Perimeter of rectangle
def Rperimeter(w, l):

result = 2 * (l + w)

return result

Sphere APFunction.py

Area and perimeter of sphere fun

def ASphere(r):

result = $4 * 3.14 * r * r$

return result

perimeter fun

def PSphere(r):

result = $(4/3) * 3.14 * r * r * r$

return result

• Graphs main.py

```
from Graphs.RectangleAPFunction import *
from Graphs.CircleAPFunction import *
from Graphs.cylinderAPFunction import *
from Graphs.cylinderAPFunction import *

num1 = int(input("Enter length of rectangle"))
num2 = int(input("Enter breadth of rectangle"))
print("Area=", RArea(num1, num2))
print("Perimeter=", Rperimetr(num1, num2))
```

```
radius = int(input("Enter radius of circle"))
print("Circle Area", (Area(radius)))
print("Circle perimeter", (Perimeter(radius)))
```

```
radius = int(input("Enter the radius of sphere"))
print("Area of sphere", Asphere(radius))
print("Perimeter of sphere", Psphere(radius))
```

```
edges = int(input("Enter the edge of cuboid"))
l = int(input("Enter the length of cuboid"))
b = int(input("Enter the breadth of cuboid"))
h = int(input("Enter the height of cuboid"))
print("Area of cuboid", Acuboid(radius))
print("Perimeter of cuboid", Pcuboid(l, b, h))
```

Output

Enter length of rectangle: 3

Enter breadth of rectangle: 4

Area = 12

Perimeter = 14

Enter the radius of circle: 2

Circle Area = 12.56

Circle Perimeter = 12.56

Enter the radius of sphere: 2

Area of Sphere = 50.24

Perimeter of sphere = 33.493

Enter the edge of cuboid

Enter the length of cuboid: 6

Enter the ~~length~~ breadth of cuboid: 7

Enter the height of cuboid: 8

Area of cuboid = 24

Perimeter of cuboid = 84