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**SE – 062 (Section B)**

**Programming Fundamentals**

**(Python)**

***Labtasks***

**Problem 1:** Write an algorithm and draw the flowchart for finding the average of two numbers

**Algorithm:**

Input: two numbers x and y Output: the average of x and y Steps:

1. input x

2. input y

3. sum = x + y

4. average = sum /2

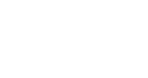
5. output average

START

Input x

Input y

Sum = x + y



Average = sum/2

Output

Average

END

**Problem 2:** Write an algorithm for finding the area of rectangle.

**Algorithm:**

Input = length and breadth

Output =Area of rectangle

**Steps:**

1- Input length(l)

2-Input breadth(b)

3-Area of rectangle=l\*b

4-Print area of rectangle



START

Input l

Input b

Area = l\*b

Print Area

END

**Problem 3:** Write a program that asks the user to enter their name and their age. Print out a message addressed to them that tells them the year that they will turn 100 years old.

name = input("What’s your name: ") age = int(input("How old are you: ")) year = str((2014 - age)+100)

print(name + " will be 100 years old in the year " + year)

**Output:**

What’s your name: MAHNOOR WASEEM

How old are you: 18

MAHNOOR WASEEM will be 100 years old in the year 2096

**Problem 4:** Write a Python program to print the following string in a specific format

Twinkle, twinkle, little star,

How I wonder what you are!

Up above the world so high,

Like a diamond in the sky.

Twinkle, twinkle, little star,

How I wonder what you are!

print("Twinkle, twinkle, little star, \n\tHow I wonder what you are! \n\t\tUp above the world so high, \n\t\tLike a diamond in the sky. \nTwinkle, twinkle, little star, \n\tHow I wonder what you are!")

**Output:**

Twinkle, twinkle, little star,

How I wonder what you are!

Up above the world so high,

Like a diamond in the sky.

Twinkle, twinkle, little star,

How I wonder what you are!

**Problem 5:** Write a Python program to display the current date and time. import datetime

now = datetime.datetime.now()

print ("Current date and time: ")

print (now.strftime("%Y-%m-%d %H:%M:%S"))

**Output:**

Current date and time:

2019-11-10 20:59:55

**Problem 6:** Write a Python program which accepts the radius of a circle from the user and compute the area.

from math import pi

r = float(input ("Input the radius of the circle : "))

print ("The area of the circle with radius " + str(r) + " is: " + str(pi \* r\*\*2))

**Output:**

Input the radius of the circle : 30

The area of the circle with radius 30.0 is: 2827.4333882308138

**Problem 7:** Write a Python program which accepts the user's first and last name and print them in reverse order with a space between them.

fname = input("Input your First Name : ")

lname = input("Input your Last Name : ")

print ("Hello " + lname + " " + fname)

**Output:**

Input your First Name : MAHNOOR

Input your Last Name : WASEEM

Hello WASEEM MAHNOOR

**Problem 8:** Write a Python program to print the calendar of a given month and year.

Note: Use 'calendar' module.

import calendar

y = int(input("Input the year : "))

m = int(input("Input the month : "))

print(calendar.month(y, m))

**Output:**

Input the year : 2019

Input the month : 11

November 2019

Mo Tu We Th Fr Sa Su

1 2 3

4 5 6 7 8 9 10

11 12 13 14 15 16 17

18 19 20 21 22 23 24

25 26 27 28 29 30