PYTHON ASSIGNMENT - 3

Question 1 –

```python
#Write a program to check if the given number is positive or negative.

num = int(input("Enter a number: "))

if num > 0:
    print("The number is positive.")
else:
    print("The number is negative.")

```

Question 2 –

```
You, 3 weeks ago | 1 author (You)
#Write a program to input any alphabet and check whether it is vowel or consonant.

char = input("Please Enter the Character : ")

if(char == 'a' or char == 'e' or char == 'i' or char == 'o' or char == 'u' or char == 'A' or char == 'E' or char == 'I' 
    print("The Character is Vowel")
else:
    print("The Character is Consonant")      You, 3 weeks ago • Python Coding Practices

```

Question 3 –

```python
# 3 Write a program to input angles of a triangle and check whether triangle is valid or not.

a = int(input("Please Enter the First Angle : "))
b = int(input("Please Enter the Second Angle : "))
c = int(input("Please Enter the Third Angle : "))

if(a+b+c==180):
    print("The Triangle is Valid")
else:
    print("The Triangle is Not Valid")
```

Question 4 –

```
#4 Write a program to input all sides of a triangle and check whether triangle is valid or not.

a = int(input("Please Enter the First Side : "))
b = int(input("Please Enter the Second Side : "))
c = int(input("Please Enter the Third Side : "))

if(a+b>c and b+c>a and c+a>b):
    print("The Triangle is Valid")
else:
    print("The Triangle is Not Valid")
```

Question 5 –

```
#5 Write a program to check whether the triangle is equilateral, isosceles or scalene triangle.

a = int(input("Please Enter the First Side : "))
b = int(input("Please Enter the Second Side : "))
c = int(input("Please Enter the Third Side : "))

if(a==b and b==c):
    print("The Triangle is Equilateral")
elif(a==b or b==c or c==a):
    print("The Triangle is Isosceles")
else:
    print("The Triangle is Scalene")
```

Question 6 –

```
#6 Write a program to calculate profit or loss.

cost_price = int(input("Please Enter the Cost Price : "))
sell_price = int(input("Please Enter the Sell Price : "))

if(cost_price<sell_price):
    print("The Profit is : ",sell_price-cost_price)
else:
    print("The Loss is : ",cost_price-sell_price)
```

Question 7 –

```python
#7 Write a program to check if user has entered correct userid and password.

userid = input("Please Enter the Userid : ")
password = input("Please Enter the Password : ")



if(userid == "admin" and password == "1234"):
    print("Login Successful")
else:
    print("Login Failed")
```

Question 8 –

```python
#8 Write a program to prompt user to enter userid and password. After verifying user

import random
userid = input("Please Enter the Userid : ")
password = input("Please Enter the Password : ")

if(userid == "admin" and password == "1234"):
    print("Login Successful")
    num = random.randint(1000,9999)
    print("Your 4 digit random number is : ",num)
    user_num = int(input("Please Enter the 4 digit random number : "))
    if(user_num == num):
        print("Success")
    else:
        print("Failed")
else:
    print("Login Failed")
```

Question 9 –

```
#9 Input 5 subject marks from user and display grade(eg.First class,Second class ..)

marks1 = int(input("Please Enter the First Subject Marks : "))
marks2 = int(input("Please Enter the Second Subject Marks : "))
marks3 = int(input("Please Enter the Third Subject Marks : "))
marks4 = int(input("Please Enter the Fourth Subject Marks : "))
marks5 = int(input("Please Enter the Fifth Subject Marks : "))

total = marks1+marks2+marks3+marks4+marks5
avg = total/5

if(avg>=90 and avg<=100):
    print("First Class with Distinction")
elif(avg>=80 and avg<90):
    print("First Class")
elif(avg>=70 and avg<80):
    print("Second Class")
elif(avg>=60 and avg<70):
    print("Third Class")
else:
    print("Fail")
```

Question 10 –

```
#10  Write a program to check if person is eligible to marry or not (male age >=21 and female age>=18)

age = int(input("Please Enter the Age : "))
gender = input("Please Enter the Gender : ")

if(gender == "male"):
    if(age>=21):
        print("Eligible")
    else:
        print("Not Eligible")
elif(gender == "female"):
    if(age>=18):
        print("Eligible")
    else:
        print("Not Eligible")
else:
    print("Invalid Gender")
```

Question 11 –

```python
#11  Accept age of five people and also per person ticket amount and then calculate to


print("1. Area of Circle")
print("2. Profit Calculation")
print("3. Number is Positive or Negative")
print("4. Exit")

option = int(input("Please Enter the Option You Want: "))

if option == 1:
    radius = int(input("Please Enter the Radius: "))
    area = 3.14 * radius * radius
    print(area, "is the Area of the Circle")
elif option == 2:
    Selling_Price = int(input("Please Enter the Selling Price: "))
    cost_price = int(input("Please Enter the Cost Price: "))
    if Selling_Price > cost_price:
        profit = Selling_Price - cost_price
        print(profit, "Rs, This is the Profit")
    else:
        print("You have a Loss")
elif option == 3:
    number = int(input("Please Enter the Number: "))
    if number < 0:
        print(number, "is a Negative Number")
    elif number > 0:
        print(number, "is a Positive Number")
    else:
        print(number, "is Neutral")
elif option == 4:
    print("Exiting the program.")
else:
    print("Please Enter a Valid Option.")
```

Question 12 and 13 –

```python
#12 Write a program to check if given 3 digit number is a palindrome or not.

number = int(input("Please Enter the Number : "))

hundreds = number // 100
tens = (number % 100) // 10
ones = number % 10

if(hundreds == ones and tens == ones):
    print("The Number is Palindrome")
else:
    print("The Number is Not Palindrome")
```

```
The Number is Not Palindrome
```

```python
#13  Write a program to input electricity unit charges and calculate total electricity

units = int(input("Please Enter the Number of Units : "))

if(units<=50):
    bill = units * 0.5
elif(units<=150):
    bill = (50*0.5) + ((units-50)*0.75)
elif(units<=250):
    bill = (50*0.5) + (100*0.75) + ((units-150)*1.2)
else:
    bill = (50*0.5) + (100*0.75) + (100*1.2) + ((units-250)*1.5)

print("The Bill is : ",bill)
```