**BASIC PROGRAMMING IN PYTHON**

**Worksheet 1.1**

**Question 1: - What will be the output of the following?**

1. print (“Introduction to Python \nProgramming”)
2. print (“100+200”)
3. print (100%10)
4. print (100//11)

**Question 2: - Write Python statements for the following:**

1. Assign the value of the variable ***num1*** *to the variable* ***total.***
2. Assign the sum of the two variable *loop\_count* and *petrol\_cost*

to the variable sum.

1. Divide the variable *total* by the value 10 and store the result in

the variable *discount*.

1. Assign the character W to the char variable letter.
2. Assign the result of dividing the integer variable sum by 3 into a variable costing.

**Question 3: - Following variables are written incorrectly. Identify the error(s) and correct them**.

1. 2EMP (ii) EMP- (iii) Stud name (iv) A$

(v) (roll) (vi) S-Name

**Question 4: - Write the value stored in the variable Num by each of the following statements:**

1. Num=2\*3-4 (ii) Num=2+3-1\*3 (iii) Num=2+3-1\*3 (iv) Num=3\*\*4+5

**Question 5: - What will be the output of the following program:**

1. print (“Python”)

print (“Programming”)

1. print (“Python\tProgramming”)
2. x=2

y=5

x=x+10\*\*y

y=x+10//y

print (“The value of x is:”,+x)

print (“The value of y is:”,+y)

**Worksheet 1.2**

Q1.Write a program to find the sum, difference, multiplication and division between two numbers and print them.

Q2. WAP to calculate the surface area of a cube (Hint 6\*a\*\*2 and volume of

cuboid and print both the results.

**Q3. WAP to calculate the total and average marks of a student in 5 subjects in 2 term exams. Print the overall average in both the terms**

Q4. WAP to print the area of a right angled triangle.(hint ½ \*b\*h).

5. WAP to print the area of a circle and volume of a cylinder. (πr\*\*2h)

6.WAP to input the total marks of 10 students in the class, calculate the class average and print the same with an appropriate statement.

7. WAP to input the values highlighted in yellow and green using appropriate formulae and print them using appropriate statements in the print commands.

|  |  |  |  |
| --- | --- | --- | --- |
| Name of player | Number of overs faced | Total Number of runs scored | Average run rate |
| Rahul | 12 | 50 |  |
| Sumit | 11 | 60 |  |
| Jyotsna | 13.2 | 40 |  |
| Rubina | 10 | 30 |  |
| Pritam | 9 | 45 |  |
| Kiran | 10.2 | 27 |  |
| Overall average of all the players |  |  |  |

8. WAP to input the temperature in Fahrenheit and convert to Celcius and vice versa.

**Hint:**

Temperature in Fahrenheit = (Temperature in Celsius × 1.8) + 32

Temperature in Celsius = (Temperature in Fahrenheit – 32) ÷ 1.8

9. WAP to input the time in hours and convert it into minutes and seconds and print with appropriate message.

**4th Aug (Control structures) If…Else**

10. WAP to print the greater of two numbers.

11. WAP to print if a number is ODD or EVEN

12.WAP to input the temperature of the day in Celcius. If the temperature is more than 30 print “It’s a warm day” else “It’s a pleasant day”.

13. WAP to find out the speed of 3 cars and print their average speed with an appropriate statement. Hint: S= D/T

14. WAP to input the temperature of a week in Fahrenheit and convert to Celcius and vice versa. Find out the average temperature for the week, both in Fahrenheit & Celcius and print them with appropriate statements.

**Hint:**

Temperature in Fahrenheit = (Temperature in Celsius × 1.8) + 32

Temperature in Celsius = (Temperature in Fahrenheit – 32) ÷ 1.8

15. WAP to input the total marks of 10 students in the class, calculate the class average and print the same with an appropriate statement. If the average marks of the 10 students is less than 35, then print “This class can do better” else “This class has done well”

**10th  August 2020**

16.WAP to input name and final term marks of a student in Maths, English, Science, Soc.sc, Hindi & AI. If the child has scored an aggregate of 90 and above it’s A+, between 80 & 89 it is A, between 70&79 its B, between 60 & 69 its C, between 50 &59 its D, between 40 & 49 its E anything below that “Needs Improvement”

HINT: if m>90:

print "A"

elif m>80 and m<90:

print "B"

else:

print "C"

17.WAP to input 3 numbers and check if they are greater than zero

18. WAP to input 3 numbers. Print their squares and cubes with appropriate statements.

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**Extra question using double if statement**

E1. WAP to enter 3 numbers and check if at least one is of them is not greater than zero

**11th AUGUST 2020**

19. What will be the output of the following

x=5

y=2

if x>y:

    if y>2:

        z=x+y

        if z>10:

            print("Z")

        print("Y")

    print("X")

else:

    print("BYE")

20.

x = 5

y=9

if x>y or y>2 :

z = x+y

if z>10 :

print(“Z”)

else:

print(“BYE”)

21. WAP to input 3 names and check if they match or mismatch.

22. WAP to input 3 numbers and print whether they are greater or smaller by using the AND Logical operator

23. WAP to input 3 numbers and print whether they are greater than each other.(Using OR Logical operator)