PYTHON PRACTICE SET - 3 :- SOLUTION

1. Get the basic salary from the employee and display the net salary by calculating the following conditions: Applicable TA 4%, DA 30%, HRA 15% on basic salary. Applicable 3% tax, 12% PF on basic salary.

Ans:=
```python
basic_salary=int(input("Enter the Basic Salary"))
ta=basic_salary * 4/100
print("Your TA will be :",ta)
da= basic_salary * 30/100
print("Your DA will be :",da)
hra = basic_salary *15/100
print("Your HRA will be :",hra)
gross_salary= basic_salary + ta +da  + hra
print("Your gross salary will be of ", gross_salary)
tax = basic_salary * 3/100
print("Your TAX will be :",tax)
pf = basic_salary * 12/100
print("Your PF will be :",pf)
net_salary= gross_salary - tax - pf
print("Your net salary will be of ", net_salary)
```

2. Get the marks of 5 subjects at the command line and display the total of marks, and percentage.

Ans:=
```python
import sys
a=int(sys.argv[1])
b=int(sys.argv[2])
c=int(sys.argv[3])
d=int(sys.argv[4])
e=int(sys.argv[5])
sum = a+b+c+d+e
print("The total sum of marks of each subject is ", sum)
percentage = sum/500*100
print("Congratulation you have got", percentage)
```

Name : Bhalodiya Milan . | Roll No: 04 | Division : A | Enrollment No : 230823008

3. Rajkot Corporation wants to make simple application to calculate Water Bill of Rajkotians. Water is being delivered by the Corporation on per litre charges as below:

Upto 90 litres – Rs. 0/ltr
Upto 150 litres – Rs. 2/ltr
Upto 250 litres – Rs. 5/ltr
More than 250 – Rs. 10/ltr

Accept unit consumption from consumer and display the bill amount.

Ans:=
```python
ltr = float(input("Enter the unit of water you consumed"))

if ltr < 90:
    print("Your water bill charges will be None.")
elif ltr >=90 and ltr <=150:
    amt = ltr * 2
    print("Your water bill charges will be ",amt)
elif ltr >150 and ltr <=250:
    amt = ltr * 5
    print("Your water bill charges will be ", amt)
elif ltr> 250:
    amt = ltr * 10
    print("Your water bill charges will be ",amt)
else:
    print("Please enter a valid LTR no.")
```

4. A tuition class owner wants to make a simple application to allocate grade to the students on the basis of marks student have scored. Accept marks from the students.

Marks more than 90 – A1 grade
Marks 80 or less than or equal 90 – A grade
Marks 70 or less than or equal 80 – B1
Marks 60 or less than or equal 70 – B
Marks 50 or less than or equal 60 – Can do Better!
Marks <50 – Need to work hard.

Ans:=

```python
marks = int(input("Enter the marks of student : "))

if marks > 90 :
    print("Congratulation, You got A1 Grade")
elif marks > 80  and marks <=90:
    print("Congratulation, You got A Grade")
elif marks > 70  and marks <=80 :
    print("Congratulation, You got B1 Grade")
elif marks > 60 and marks <=70:
    print("Congratulation, You got B Grade")
elif marks > 50 and marks <=60:
    print("You can do better next time")
else :
    print("Unforunately, you have to RA for Exam next time")
```

5. Income Tax department wants to make an application that calculates tax on the basis of the income. Accept yearly income earned by the taxpayer as an input and calculate tax to be paid. The tax slab is as below:

> **Income up to 8 lakhs – No tax**
> **Income more than 8 lakh and less than 10 lakhs – 15% of income**
> **Income more than 10 lakhs and less than 20 lakhs – 20% of income**
> **Income more than 20 lakhs – 30% of income**

Ans:=

```python
income = int(input("Enter the income of the person : "))

if income <= 800000 :
    print("You come under the Below 800000 Slab so no tax will be charged
")
elif income >800000 and income <=1000000 :
    tax = income * 15/100
    print("You comes under the Slab Between 800000 to 100000, so you have
to pay tax = ", tax)
elif income >1000000 and income <=2000000 :
    tax = income * 20/100
    print("You comes under the Slab Between 1000000 to 2000000 , so you
have to pay tax = ", tax)
```

```python
elif income >2000000  :
    tax = income * 30/100
    print("You comes under the Slab Above 2000000, so you have to pay tax
= ", tax)
else :
    print("Please enter a valid income amount")
```

6. Accept two integer values in separate variable, display the small value and big value out of it.

Ans:=
```python
a=int(input("Enter the number"))
b=int(input("Enter the number"))

if a>b :
    print("The A is Bigger as A is :",a)
    print("The B is Smaller as B is : ",b)
else :
    print("The A is Smaller as A is :",a)
    print("The B is Bigger as B is : ",b)
```

7. Accept marks from 4 students, display which mark is highest among all.

Ans:=
```python
a= int(input("Enter the marks of student 1 : "))
b= int(input("Enter the marks of student 2 : "))
c= int(input("Enter the marks of student 3 : "))
d= int(input("Enter the marks of student 4 : "))

if a>b and a>c and a>d :
    print("Student 1 got the highest marks.")
elif b>a and b>c and b>d:
    print("Student 2 got the highest marks.")
elif c>a and c>b and c>d:
    print("Student 3 got the highest marks.")
else:
    print("Student 4 got the highest marks.")
```

8. An online selling app wants to develop a application to calculate shipping charges on the purchase. Accept amount from the user and calculate the shipping charges. The shipping charges are as below:

Shopping amount less than 1500 – The shipping charges is Rs. 100/-

   --Type the message: Please purchase (1500-amount) to avail shipping charge of Rs. 80/-

   --Please pay (amount+100)

Shopping amount more than 1500 and less than 3000 – The shipping charges is Rs. 70/-

   --Type the message: Please purchase (3000-amount) to avail shipping charge of Rs. 50/-

   --Please pay (amount+70)

Shopping amount more than 3000 – Free shipping + 7% discount on amount

   --Type a message: You saved (amount*7/100)

   --Please pay (amount – discount)

Ans:=

```python
amount = int(input("Enter the Bill amount : "))

if amount < 1500 :
    print("Please purchase for 1500 to avail the shipping charges of 80/-")
    price = amount + 100
    print("Your Bill Amount including Shipping charges of 100 is : ",price)
elif amount >=1500 and amount < 3000:
    print("Please purchase for 3000 to avail the shipping charges of 50/-")
    price = amount + 70
    print("Your Bill Amount including Shipping charges of 70 is : ",price)
else :
    print("Hurray! you have purchsed above 3000, you got free shipping as well as 7% Discount.")
    price = amount - (amount * 7/100)
    print("Your Bill Amount after the discount is : ",price)
```