

PYTHON ASSIGNMENT- 1(Basics)

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Q1) Percentage of 5 subjects

Program =

```
p=int(input("enter python marks="))
c=int(input("enter c marks="))
cp=int(input("enter c++ marks="))
j=int(input("enter java marks="))
d=int(input("enter dbms marks="))

percentage=(p+c+cp+j+d)/500*100
print("percentage of student= ",percentage)
```

Q2) Area of Rectangle

Program=

```
l=int(input("enter length= "))
b=int(input("enter breadth= "))

area=2*(l+b)
print("area of rectangle=",area)
```

Q3) If Area of room is 144 sq m. then how many tiles of size 12*12 sq cm will be required to cover the flooring of room.

Program=

```
Area=14000 #cause 1m=100cm
length=12
breadth=12

area_of_onetile= length*breadth
print("area of onetile= ",area_of_onetile,"cm^2")

num_of_tiles=Area/area_of_onetile
print("number of tiles are= ",num_of_tiles)
```

Q4) If there are 20 students who like football, 30 students like badminton and 10 like both. there are 20 who are not intrested if any of the games. how many total number of students are there?

Program=

```
football=20
badminton=30
both=10
not_intrested=20

total_football=football-both
total_badminton=badminton-both

total_students=total_football + total_badminton + not_intrested
print("total students are= ",total_students)
```

Q5) Convert the time in seconds

Program=

```
hh=int(input("enter time in hours= "))
mm=int(input("enter time in minutes= "))
ss=int(input("enter time in seconds= "))

time_in_seconds= hh*3600 + mm*60 + ss
print("time entered in seconds is= ",time_in_seconds)
```

Q6) Convert Celsius to Fahrenheit

Program=

```
celsius=int(input("enter temprature in celsius= "))
fahrenheit=(celsius*9/5)+32
print("temprature in fahrenheit= ",fahrenheit,"far")
```

Q7) Convert distance given in feet & inches into meter and centimeter

Program=

```
feet= int(input("enter distance given in feet= "))
inch= int(input("enter distance given in inch= "))

meter= feet*0.3048
centimeter= inch*2.54
print("distance in meter=",meter,"m", "and centimeter=",centimeter,"c")
```

Q8) Calculate area of triangle

Program=

```
base=int(input("enter base="))
height=int(input("enter height="))

area=1/2*(base*height)
print("area of triangle= ",area,"cm^2")
```

Q9) Calculate selling price of book based on cost price and discount

Program=

```
cost_price=int(input("enter cost price= "))
discount=int(input("enter dicount= "))

selling_price=cost_price*(100-discount)/100
print("selling price is= ",selling_price)
```

Q10) Calculate total salary of employee based on basic, da=10% of basic, ta=12% of basic and hra=15% of basic

Program=

```
basic=float(input("enter basic salay= "))

da=float(basic*0.10) #da=10% of basic
ta=float(basic*0.12) #ta=12% of basic
hra=float(basic*0.15) #hra=15% of basic

total_salary=float(basic+da+ta+hra)
print("total salary= ",total_salary)
```

Q11) Find sum of three digit number

Program=

Approach 1)

```
num=int(input("enter three dig num="))
w=num//10
x=w//10
y=w%10
z=num%10

sum=x+y+z
print("sum of digits= ",sum)
```

Approach 2)

```
num=int(input("enter three dig num="))
sum=0
sum+=num%10
num //=10
sum+=num%10
num //=10
sum+=num%10
num //=10

print("sum of digits= ",sum)
```

Q12) Assign two nums and swap it using third variable

Program=

```
a=int(input("enter a= "))
b=int(input("enter b= "))
print("before swapping a and b= ",a,b)
temp=a
a=b
b=temp
print("after swapping a and b= ",a,b)
```

Q13) Assign two nums and swap it without using third variable

Programs=

```
a=int(input("enter a= "))
b=int(input("enter b= "))
print("before swapping a and b is=",a,b)
a,b=b,a
print("after swapping a and b is= ",a,b)
```

Q14) Reverse Three digit nums

Programs=

```
number=int(input("enter no= "))
reverse=0
while(number>0):
    reverse=(reverse*10)+(number%10)
    number=number//10

print("reverse no of",number,"is=",reverse)
```

Q15) Accept an integer amount from user and tell minimum number of notes needed for representing that amount

Program=

```
Approach-1)

amount=int(input("enter amount= "))

notes=[2000,500,200,100,50,20,10,5,1] #num of notes
notesCheaker=[0,0,0,0,0,0,0,0,0] #notesCounter

print("currency count= ")

for i,j in zip(notes,notesCheaker): #i for notes ,j for num of notes
    if amount>=i:
        j=amount//i
        amount=amount-j*i
        print(i," = ",j)
```

Approach-2)

```
amount=int(input("enter amount= "))

no_of_notes=0

no_of_notes=amount//2000
amount=amount%2000

no_of_notes+=amount//500
amount=amount%500

no_of_notes+=amount//200
amount=amount%200

no_of_notes+=amount//100
amount=amount%100

no_of_notes+=amount//50
amount=amount%50

no_of_notes+=amount//20
amount=amount%20

no_of_notes+=amount//10
amount=amount%10

print("number of notes are= ",no_of_notes)
```