Assignment-3

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SECTION AND GROUP : B AND G5

Question 1

Ramesh's basic salary is input through the keyboard. His dearness allowance is 40% of basic salary, and house rent allowance is 20% of basic salary. Write a program to calculate his gross salary.

ANS

```c
#include<stdio.h>
void main(){
    float bscsal, drnalw,rntalw,grssal;
    scanf("%f",&bscsal);
    drnalw=bscsal*(40.0/100);
    rntalw=bscsal*(20.0/100);
    grssal=bscsal+drnalw+rntalw;
    printf("The Gross Salary is %f",grssal);
}
```

```
5000000
The Gross Salary is 8000000.000000
PS D:\C++>
```

Question 2

The distance between Pune and Hyderabad is input through the keyboard. Write a program to convert and print this distance in meters, feet, inches and centimetres.

ANS

```c
#include<stdio.h>
void main (){
    printf("Enter distance between Pune and Hyderabad(in kms): ");
    int dst;
    scanf("%d",&dst);
    int mts=dst*1000,ft=3281*dst,in=12*ft,cm=mts*100;
    printf("The distance is %d meters or %d feet or %d inches or %d centimeters",mts,ft,in,cm);

}
```

```
Enter distance between Pune and Hyderabad(in k
ms): 562
The distance is 562000 meters or 1843922 feet
or 22127064 inches or 56200000 centimeters
PS D:\C++>
```

Question 3

If the marks obtained by the student in five different subjects are input through the keyboard, write a program to find out the aggregate marks and percentage marks obtained by the student. Assume that the maximum marks that can be obtained by a student in each subject is 100.

ANS

```c
#include<stdio.h>
void main (){
    printf("Enter Marks of student between 0 to 100: ");
    int m1,m2,m3,m4,m5;
    scanf("%d %d %d %d %d",&m1,&m2,&m3,&m4,&m5);
    int agr=m1+m2+m3+m4+m5;
    float percent=(agr/500.0)*100;
    printf("The Aggregate marks obtained by student is %d and percentage marks is %.2f %%",agr,percent);

}
```

```
Enter Marks of student between 0 to 100: 83 91
 92 93 94
The Aggregate marks obtained by student is 453
 and percentage marks is 90.60 %
PS D:\C++>
```

Question 4

If the total selling price of 15 items and the total profit earned on them is input through thekeyboard, write a program to find the cost price of one item.

ANS

```
#include<stdio.h>
void main (){
    printf("Enter Selling price and profit: ");
    int sp, pf ,cp;
    scanf("%d %d",&sp,&pf);
    cp=sp-pf;
    printf("The Cost Price is %d",cp);
}
```

```
Enter Selling price and profit: 80000
20000
The Cost Price is 60000
PS D:\C++>
```

Question 5

Temperature of Pune in Fahrenheit degrees is input through the keyboard. Write a program to convert this temperature into Centigrade degrees.

ANS

```
#include<stdio.h>
void main (){
    printf("Enter Temperature of Pune(in °F): ");
    float f,c;
    scanf("%f",&f);
    c=(f-32)*(5.0/9);
    printf("The Temperature is %.2f °C",c);
}
```

```
Enter Temperature of Pune(in °F): 83
The Temperature is 28.33 °C
PS D:\C++>
```

Question 6

In a town, the percentage of men is 52. The percentage of total literacy is 48. If total percentage of literate men is 35 of the total population, write a program to find the total number of illiterate men and women if the population of the town is 80,000.

ANS

```
#include<stdio.h>
void main (){
int tp,men,women,totallil,totalill,lilmen,lilwomen,illmen,illwomen;
tp=80000;
men=(tp*52)/100;
women=tp-men;
totallil=(tp*48)/100;
totalill=tp-totallil;
lilmen=(tp*35)/100;
illmen=men-lilmen;
lilwomen=totallil-lilmen;
illwomen=women-lilwomen;
printf("The Total Illiterate men is %d and women is %d",illmen, illwomen);
}
```

```
The Total Illiterate men is 13600 and women is 28000
PS D:\C++>
```

Question 7

If a five-digit number is input through keyboard, write a program to calculate the sum of its digits.

ANS

```c
#include<stdio.h>
void main (){
    int num;
    printf("Enter a Number: ");
    scanf("%d", &num);
    int sum=0;
    while(num!=0){
        sum=sum+num%10;
        num=num/10;
    }
    printf("%d",sum);
}
```

```
p31 } ; if ($?) { .\cp31 }
Enter a Number: 69420
21
PS D:\C++>
```

Question 8

Two numbers are input through keyboard into two locations C and D. Write a program to interchange the contents of C and D.

ANS

```c
#include<stdio.h>
void main (){
    int c,d;
    printf("Enter two Number: ");
    scanf("%d %d", &c,&d);
    int temp=c;
    c=d;
    d=temp;
    printf("Numbers were succesfully interchanged from c to d i.e. from c=%d & d=%d to c=%d & d=%d",d,c,c,d)

}
```

```
$?) { gcc cp31.c -o cp31 } ; i
f ($?) { .\cp31 }
Enter two Number: 39 26
Numbers were succesfully inter
changed from c to d i.e. from
c=39 & d=26 to c=26 & d=39
PS D:\C++>
```

Question 9

The cashier has currency notes of denominations 10, 50 and 100. If the amount to be withdrawn is input through the keyboard in hundreds, write a program to find the total number of currency notes of each denomination the cashier will have to give to the withdrawer.

ANS

```c
#include<stdio.h>
void main (){
    int amt, tn, ft,hd ;
    printf("Enter Amount: ");
    scanf("%d",&amt);
    int temp=amt;
    hd=amt/100;
    amt=amt%100;
    ft=amt/50;
    amt=amt%50;
    tn=amt/10;
    amt=amt%10;
    printf("The amount %d is %d hundred notes , %d fifty notes and %d ten notes",temp,hd,ft,tn);
}
```

```
p31.c -o cp31 } ; if ($?) { .\cp31 }
Enter Amount: 806945
The amount 806945 is 8069 hundred notes ,
 0 fifty notes and 4 ten notes
PS D:\C++>
```

Question 10

If a five-digit number is input through the keyboard. Write a program to reverse the number.

ANS

```c
#include<stdio.h>
void main (){
int num ;
printf("Enter a Number: ");
scanf("%d",&num);
int rev=0,rem;
while(num!=0){
    rem=num%10;
    rev=rev*10+rem;
    num=num/10;
}
printf("%d",rev);
}
```

```
PS D:\C++> cd "d:\C++\" ; if ($?) { gcc c
p31.c -o cp31 } ; if ($?) { .\cp31 }
Enter a Number: 46544
44564
PS D:\C++>
```

END