

Subject

Programming and Data Structures using C

Assignment 2

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Write a C Program for the following problem statements

Q1. Print “ your name–SOA University ”.

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    printf("Ankit Kumar Patel-SOA University");
```

```
    return 0;
}
```

Output:

```
Ankit Kumar Patel-SOA University
```

Q2. Print your name, mobile number and email id in different lines.

```
#include <stdio.h>

int main()
{
    printf("Name:Ankit kumar patel \n");
    printf("Number:9090054382 \n");
    printf("email:ankitpatel139@gmail.com");
    return 0;
}
```

Output:

```
Name:Ankit kumar patel

Number:9090054382
```

email:ankitpatel139@gmail.com

Q3. Get int, float and char as input, then print the same.

```
int main()
{
    int i;
    char ch;
    float f;

    printf(" Please Enter a Character : ");
    scanf("%c", &ch);

    printf(" Please Enter an Integer Value : ");
    scanf("%d", &i);

    printf(" Please Enter Float Value : ");
    scanf("%f", &f);

    printf(" \n The Integer Value that you Entered is : %d", i);
```

```
printf(" \n The Character that you Entered is : %c", ch);
```

```
printf(" \n The Float Value that you Entered is : %f", f);
```

```
return 0;
```

```
}
```

Output:

```
The Integer Value that you Entered is : 139
```

```
The Character that you Entered is : a
```

```
The Float Value that you Entered is : 22.129999
```

Q4. Find the cube of the given number.

```
#include <stdio.h>
```

```
int main()
```

```
{  
int cube,num;  
printf("Enter the value to find Cube :");  
scanf("%d",&num);  
cube=num*num*num;  
printf("The cube of the number is: %d",cube);  
return(0);  
}
```

Output:

```
Enter the value to find Cube :3  
  
The cube of the number is: 27
```

Q5. Find the sum of five given numbers.

```
#include <stdio.h>
```

```
int main()
{
int a,b,c,d,e,sum;
printf("Enter first number:");
scanf("%d",&a);
printf("Enter second number:");
scanf("%d",&b);
printf("Enter third number:");
scanf("%d",&c);
printf("Enter fourth number:");
scanf("%d",&d);
printf("Enter fifth number:");
scanf("%d",&e);
sum=a+b+c+d+e;
printf("The sum of the number is: %d",sum);
return(0);
}
```

Output:

```
Enter first number:1  
  
Enter second number:2  
  
Enter third number:3  
  
Enter fourth number:4  
  
Enter fifth number:5  
  
The sum of the number is: 15
```

Q6. Find a student average mark given mark1 and mark2.

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    float mark1,mark2;
```

```
    float avg;
```

```
printf("Enter the first mark:");  
scanf("%f",&mark1);  
printf("Enter the second mark:");  
scanf("%f",&mark2);  
avg=(mark1+mark2)/2;  
printf("The average mark is: %f",avg);  
return(0);  
}
```

Output:

```
Enter the first mark:50  
  
Enter the second mark:60  
  
The average mark is: 55.000000
```

Q7. Calculate the total fine charged by library for late return books. The charge is 0.20 INR for 1 day.

```
#include <stdio.h>
```



```
int main()
{
float days;

float fine;

printf("Enter number of days of late return book:");

scanf("%f",&days);

fine=days*0.20;

printf("The total fine charged is : %f ",fine);

return 0;

}
```

Output:

```
Enter number of days of late return book:10

The total fine charged is : 2.000000
```

Q8.You had bought a nice shirt which cost Rs.29.90 exclusive of 15% discount. Count the discounted price for the shirt.

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
float cost = 29.90;
```

```
float discount = 0.15;
```

```
float dp, dis;
```

```
dis=cost*discount;
```

```
dp=cost - dis;
```

```
printf("The discounted price for the shirt is : %f",dp);
```

```
return(0);
```

```
}
```

Output:

```
The discounted price for the shirt is : 25.41499
```

```
9
```

Q9. swap two numbers with third variable

```
#include<stdio.h>

int main()
{
    int first, second, temp;
    printf("Enter first number: ");
    scanf("%d", &first);
    printf("Enter second number: ");
    scanf("%d", &second);
    temp = first;
    first = second;
    second = temp;
    printf("After swapping, First Number = %d\n", first);
    printf("After swapping, Second Number = %d", second);
    return 0;
}
```

Output:

```
Enter first number: 1
```

```
Enter second number: 2
```

```
After swapping, First Number = 2
```

```
After swapping, Second Number = 1
```

Q10. swap two numbers without third variable(By + and–(or)By * and /).

```
#include<stdio.h>
```

```
int main() {
```

```
    int a,b;
```

```
    printf("Enter first number: ");
```

```
    scanf("%d", &a);
```

```
    printf("Enter second number: ");
```

```
    scanf("%d", &b);
```

```
    a=a+b;
```

```
b=a-b;
```

```
a=a-b;
```

```
printf("After swapping, First Number = %d\n",a);
```

```
printf("After swapping, Second Number = %d", b);
```

```
return 0;
```

```
}
```

Output:

```
Enter first number: 5
```

```
Enter second number: 10
```

```
After swapping, First Number = 10
```

```
After swapping, Second Number = 5
```