

SUBJECT- PROGRAMMING AND DATA STRUCTURE USING C (PDSC)

LECTURE-M. Thangavel

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1. Print “your name – SOA University”.

Ans:-

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

```
int main()
```

```
{
```

```
printf("Tanmoy Pramanick-SOA University");
```

```
return 0;
```

```
}
```

OUTPUT:-

A screenshot of a code editor showing a C program. The code includes <stdio.h>, defines main(), and uses printf to print "Tanmoy Pramanick-SOA University". Below the code, the output of the program is shown as "Tanmoy Pramanick-SOA University".

```
9 #include <stdio.h>
10 int main()
11 {
12     printf("Tanmoy Pramanick-SOA University");
13     return 0;
14 }
15
```

input

Tanmoy Pramanick-SOA University

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

Ans:-

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

```
int main()
```

```
{
```

```
printf("NAME-Tanmoy Pramanick\n""PHN NO:-7978557446\n""EMAIL-ID-pramanickt15@gmail.com");
```

```
return 0;
```

```
}
```

OUTPUT:-

A screenshot of a code editor showing a C program. The code includes <stdio.h>, defines main(), and uses printf with \n to print the name, phone number, and email address on separate lines. Below the code, the output is shown as three lines: "NAME-Tanmoy Pramanick", "PHN NO:-7978557446", and "EMAIL-ID-pramanickt15@gmail.com".

```
9 #include <stdio.h>
10 int main()
11 {
12     printf("NAME-Tanmoy Pramanick\n""PHN NO:-7978557446\n""EMAIL-ID-pramanickt15@gmail.com");
13     return 0;
14 }
15
16
```

input

NAME-Tanmoy Pramanick
PHN NO:-7978557446
EMAIL-ID-pramanickt15@gmail.com

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

Ans:-

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

```
int main()
```

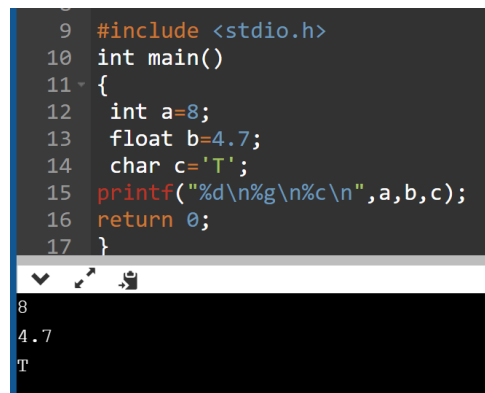
```
{
```

```

int a=8;
float b=4.7;
char c='T';
printf("%d\n%g\n%c\n",a,b,c);
return 0;
}

```

OUTPUT:-



```

9  #include <stdio.h>
10 int main()
11 {
12     int a=8;
13     float b=4.7;
14     char c='T';
15     printf("%d\n%g\n%c\n",a,b,c);
16     return 0;
17 }

```

8
4.7
T

4. Find the cube of the given number.

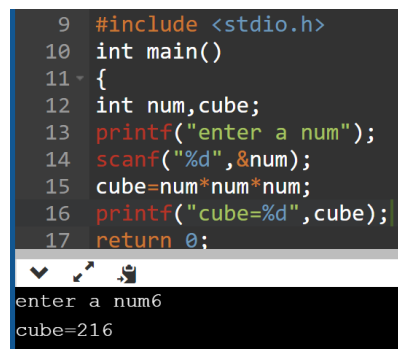
Ans:-

```

#include <stdio.h>
int main()
{
    int num,cube;
    printf("enter a num");
    scanf("%d",&num);
    cube=num*num*num;
    printf("cube=%d",cube);
    return 0;
}

```

OUTPUT:-



```

9  #include <stdio.h>
10 int main()
11 {
12     int num,cube;
13     printf("enter a num");
14     scanf("%d",&num);
15     cube=num*num*num;
16     printf("cube=%d",cube);
17     return 0;
}

```

enter a num6
cube=216

5. Find the sum of five given numbers.

Ans:-

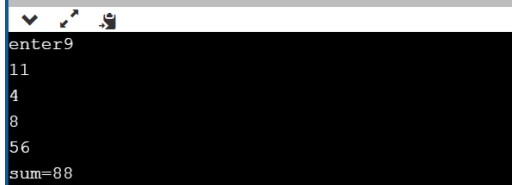
```

#include <stdio.h>
int main()
{
    int a,b,c,d,e,sum;
    printf("enter");
    scanf("%d%d%d%d%d",&a,&b,&c,&d,&e);
    sum=a+b+c+d+e;
    printf("sum=%d",sum);
    return 0;
}

```

OUTPUT:-

```
9  #include <stdio.h>
10 int main()
11 {
12     int a,b,c,d,e,sum;
13     printf("enter");
14     scanf("%d%d%d%d%d",&a,&b,&c,&d,&e);
15     sum=a+b+c+d+e;
16     printf("sum=%d",sum);
17     return 0;
18 }
19
20
21
```



```
enter9
11
4
8
56
sum=88
```


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

Ans:-

```
#include <stdio.h>
int main()
{
    float mark1,mark2,avg;
    printf("enter");
    scanf("%f%f",&mark1,&mark2);
    avg=(mark1+mark2)/2;
    printf("avg=%g",avg);
    return 0;
}
```

OUTPUT:-

```
9  #include <stdio.h>
10 int main()
11 {
12     float mark1,mark2,avg;
13     printf("enter");
14     scanf("%f%f",&mark1,&mark2);
15     avg=(mark1+mark2)/2;
16     printf("avg=%g",avg);
17     return 0;
18 }
19
20
21
```



```
enter8
7
avg=7.5
```

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

Ans-

```
#include <stdio.h>
int main()
{
    int days,fine;
    printf("enter days");
    scanf("%d",&days);
    fine=days*0.20;
    printf("fine=%d",fine);
}
```

```
return 0;
}
```

OUTPUT:-

```
8
9  #include <stdio.h>
10 int main()
11 {
12     int days,fine;
13     printf("enter days");
14     scanf("%d",&days);
15     fine=days*0.20;
16     printf("fine=%d",fine);
17     return 0;|
18 }
19
20
21
```

enter days9
fine=1

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

Ans:-

```
#include <stdio.h>
int main()
{
    float cost=29.90,actualprice,discountprice;
    actualprice=cost*0.15;
    discountprice=cost-actualprice;
    printf("discountprice=%g",discountprice);
    return 0;
}
```

OUTPUT:-

```
9  #include <stdio.h>
10 int main()
11 {
12     float cost=29.90,actualprice,discountprice;
13     actualprice=cost*0.15;
14     discountprice=cost-actualprice;
15     printf("discountprice=%g",discountprice);
16     return 0;|
17 }
18
19
20
```

input
discountprice=25.415

9. swap two numbers with third variable

Ans:-

```
#include <stdio.h>
int main()
{
    int a=5,b=6,c;
    c=a;
    a=b;
    b=c;
    printf("a=%d\nb=%d\n",a,b);
}
```

```
return 0;
}
```

OUTPUT:-

```
9  #include <stdio.h>
10 int main()
11 {
12     int a=5,b=6,c;
13     c=a;
14     a=b;
15     b=c;
16     printf("a=%d\nb=%d\n",a,b);
17     return 0;
18 }
19
```

a=6
b=5

10. swap two numbers without third variable.

Ans:-

```
#include <stdio.h>
int main()
{
    int a=5,b=6;
    a=a+b;
    b=a-b;
    a=a-b;
    printf("a=%d\nb=%d\n",a,b);
    return 0;
}
```

OUTPUT:-

```
9  #include <stdio.h>
10 int main()
11 {
12     int a=5,b=6;
13     a=a+b;
14     b=a-b;
15     a=a-b;
16     printf("a=%d\nb=%d\n",a,b);
17     return 0;
18 }
19
```

a=6
b=5