

```
#include <stdio.h>
void series (int n);
int main()
{
    int n;
    printf ("Enter a no");
    scanf ("%d", &n);
    series (n);
}

void series (int n)
{
    int k=1;
    for (int i=1; i<=n; i++)
    {
        for (int j = 1; j <= i; j++)
        {
            printf ("%d ", k);
            k++;
        }
        printf ("\n");
    }
}
```

② #include <stdio.h>
void grades (int cie, int see);
int main ()
{
 int x, y;
 printf ("Enter cie marks out of 60 m");
 scanf ("%d", &x);
 printf ("Enter see marks out of 100 m");
 scanf ("%d", &y);
 grades (x, y);
 return 0;
}

void grades (int cie, int see) {

{

int z; float z, total;

$z = \text{see} / 2.0$;

total = cie + z;

if (total ≥ 90 & & total ≤ 100)

printf ("Grade: S \n");

else if (total ≥ 80 & & total ≤ 89)

printf ("Grade: A \n");

else if (total ≥ 70 & & total ≤ 79)

printf ("Grade: B \n");

else if (total ≥ 60 & & total ≤ 59)

printf ("Grade: C \n");

else if (total ≥ 50 & & total ≤ 49)

printf ("Grade: D \n");

else if (total ≥ 40 & & total ≤ 39)

printf ("Grade: E \n");

else
printf ("Grade: F \n");

}

```
③ #include <stdio.h>
void prime (int x, int y);
int main ()
{
    int a, b;
    printf ("Enter 2 nos 'x' & 'y', such that first no is less than  
second");
    scanf ("%d %d", &a, &b);
    prime (a, b);
    return 0;
}
```

```
void prime (int x, int y)
```

```
{ int flag = 0;
for (int i = 2; i <= y; i++)
    if (i * i == y)
        flag = 1;
```

```
{ flag = 0;
for (int j = 2; j = i / 2; j++)
    if (i % j == 0)
        flag = 1;
```

```
if (flag == 0)
    break;
```

```
breaks {
```

```
if (flag == 1);
```

```
break;
```

```
}
```

```
if (flag != 1)
```

```
printf ("%d", i);
```

```
}
```

```

④ #include <stdio.h>
void cylinder();
void cone();
void sphere();
int main()
{
    int ch;
    printf("1. Cylinder 2. Cone 3. Sphere 4. Exit \n");
    printf("Enter your choice \n");
    scanf("%d", &ch);
    switch(ch)
    {
        case 1:
            cylinder();
            break;
        case 2:
            cone();
            break;
        case 3:
            sphere();
            break;
        case 4:
            printf("Exiting");
            break;
        default:
            printf("Enter correct value \n");
    }
}
while (ch != 4);
return 0;
}

```

void cylinder()

```
{  
    float a, v; r, h;  
    printf ("Enter the radius and height (m)");  
    scanf ("%f %f", &r, &h);  
    a = (2 * 3.14 * r * h) + (2 * 3.14 * r * r);  
    v = (3.14 * r * r * h);
```

```
printf ("Area : %f ; Volume : %f (m)", a, v);
```

```
}
```

void cone()

```
{  
    float a, v; r, h;  
    printf ("Enter the radius and height (m)");  
    scanf ("%f %f", &r, &h);
```

```
a = (3.14 * r * (r + sqrt((h * h) + (r * r))));
```

```
v = (3.14 * r * r * (h / 3.0));
```

```
printf ("Area : %f ; Volume : %f (m)", a, v);
```

```
}
```

void sphere()

```
{  
    float a, v, r;  
    printf ("Enter radius ");  
    scanf ("%f", &r);
```

```
a = 4 * 3.14 * r * r;
```

```
v = (4.0 / 3.0) * 3.14 * r * r * r;
```

```
printf ("Area : %f ; Volume : %f (m)", a, v);
```

```

⑥ #include <stdio.h>
# include <math.h>
int main ()
{
    char name [5][20];
    int cle [20];
    int i, j, x, cl, c2, c3;
    cl = c2 = c3 = 0;
    for (i=0; i<5; i++)
    {
        printf ("Enter name of student %d \n", i+1);
        scanf ("%s", name[i]);
        printf ("CHOICE OF ELECTIVES \n");
        printf ("1. Internet of Things \n");
        printf ("2. Advanced JAVA and J2EE \n");
        printf ("3. Advanced Data Structures \n");
        printf ("Enter your choice \n");
        scanf ("%d", &elec[i]);
    }
    printf ("choice of ELECTIVES \n");
    printf ("1. Internet of Things \n");
    printf ("2. Advanced Java and J2EE \n");
    printf ("3. Advanced Data Structures \n");
    printf ("Enter the elective for which you want \n to display the
    Student : \n");
    scanf ("%d", &x);
    for (i=0; i<5; i++)
    {
        if (elec[i] == x)
        {
            printf ("Name %d : %s \n", i+1, name[i]);
        }
    }
    for (i=0; i<5; i++)
    {
        if (elec[i] == 1)
            cl++;
        else if (elec[i] == 2)
    }
}

```

else :

 c3++;

}
printf ("The no of students in elective 1 are : %d \n", c1);
printf ("The no of students in elective 2 are : %d \n", c2);
printf ("The no of students in elective 3 are : %d \n", c3);

if (c1 < c2)

{

 printf ("Course 1 has been floated \n");

 for (i=0; i<5; i++)

{

 if (elec[i] == 1)

{

 printf ("2. Advanced Java\n");

 printf ("3. Advanced Data Structure \n");

 printf ("student %d Enter choice ", i+1);

 scanf ("%d", &elec[i]);

}

}

else if (c2 < c1)

{

 printf ("Course 2 has been floated \n");

 for (i=0; i<5; i++)

{

 if (elec[i] == 2)

 printf ("1. Internet of thing \n");

 printf ("3. Advanced Data Strudi \n");

 printf ("student %d Enter choice \n", i+1);

 scanf ("%d", &elec[i]);

}

}

```

else
{
    printf("Candidate 3 has selected 'u');
    for (i=0; i<5; i++)
    {
        if (ele[i]==3)
        {
            printf(" * POF 'u');
            printf(" * Advanced JEE);
            printf(" student %d has chosen 'u", i+1);
            scanf("%d", &ele[i]);
        }
    }
}

c1 = c2 = c3 = 0
for (int i=0; i<5; i++)
{
    cl++;
    if (ele[i]==1)
        cl++;
    else if (ele[i]==2)
        c2++;
    else
        c3++;
}

printf(" No of students in 1: %d 'u", cl);
printf(" No of students in 2: %d 'u", c2);
printf(" No of students in 3: %d 'u", c3);

if (cl!=0)
{
    printf(" students in 1 'u");
    for (i=0; i<5; i++)
    {
        if (ele[i]==1)
            printf(" name %s", name[i]);
    }
}

```

```
if (c2!=0)
```

```
{
```

```
printf(" Students in 2 \n");
```

```
for(i=0; i<s; i++)
```

```
{
```

```
if (ele[i] == 2)
```

```
printf("Name: %s \n", name[i]);
```

```
}
```

```
}
```

```
if (c3!=0)
```

```
{
```

```
printf(" Students in 3 \n");
```

```
for(i=0; i<s; i++)
```

```
{
```

```
if (ele[i] == 3)
```

```
printf("Name: %s \n", name[i]);
```

```
}
```

```
}
```

```
return 0;
```

```
}
```