Exercise

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Q. Write a c program to Swap two Numbers.

means: Input : x = 10 y = 20;

output: x = 20 Y = 10;

Ans 1 (using third variable ie z)

```
int main()
{
int x, y, z;
printf("Enter value of x= ");
scanf("%d", &x);
printf("Enter Value of y = ");
scanf("%d", &y);
z=x;
x=y;
y=z;
printf("\n After Swapping : x=%d, y=%d",
x, y);
return 0;
}
```

output 1

Enter ~~two~~ value of x = 12
Enter value of y = 14
After swapping : x=14, y=12

E- II

output-2

Enter Value of x = 10
Enter Value of y = 20
After Swapping : x = 20 , y = 10

Ans 2 (without using third variable)
x=10 , y = 20

```
#include <stdio.h>
    int main()
    {
    int x = 10 , y=20;
printf("Before swap x = %d y=%d", x,y);
    x = x+y ; //{x=30 (10+20)}
    y = x-y ; //{y=10 (30-20)}
    x = x-y ; //{x=20 (30-10)}
printf("\n After swap x=%d y=%d", x,y);
    return 0;
}
```

output

Before swap x=10 y=20
After swap x=20 y=10

8 Program to print product of two Matrix.

```
#include <stdio.h>
int main()
{
int m, n, p, q, c, d, k, sum=0;
int first[5][5], second[5][5], multiply[5][5];
printf("Enter no. of rows and columns of 1st Matrix\n");
    scanf("%d%d", &m, &n);
printf("Enter elements of first matrix\n");
    for (c=0; c<m; c++)
      for (d=0; d<n; d++)
        scanf("%d", &first[c][d]);
printf("Enter no. of rows & columns of 2nd Matrix\n");
    scanf("%d%d", &p, &q);
    if (n!=p)
printf("The multiplication is not posible.\n");
    else
    {
printf("Enter elements of second matrix\n");
    for (c=0; c<m; c++) {
      for (d=0; d<q; d++) {
scanf("%d", &second[c][d]);
for (c=0; c<m; c++) {
    for (d=0; d<q; d++) {
```

P.T.O.

```
for ( k=0; k<p; k++ ) {
    sum = sum + first[c][k] * second[k][d];
}
    multiply[c][d] = sum;
    sum = 0;
  }
}
printf("Product of the Matrices:\n");
  for(c=0; c<m; c++){
    for (d=0; d<q; d++)
      printf("%d\t", multiply[c][d]);
    printf("\n");
  }
}
return 0;
}
```

output

```
Enter the no. of rows and columns of 1st Matrix
3
3
Enter the elements of first matrix
1 2 0
0 1 1
2 0 1
```

P.T.O.

Cont...

E-VI

Enter the no. of rows and columns of second matrix

3
3

Enter the elements of second matrix

1 1 2
2 1 1
1 2 1

Product of ~~entered~~ the matrices :

5 3 4
3 3 2
3 4 5
