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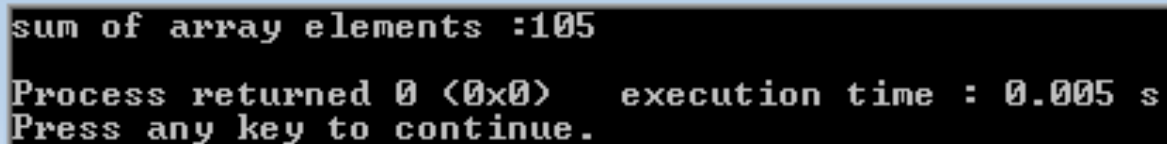**Subject :** Discrete Mathematics
Group : C
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Assignment : 3

Q1)
```c
#include<stdio.h>
void sum(int a[3],int b[3])
{
int *ptr1 = &a[0];
int *ptr2 = &b[0];
int z=((*(ptr1))+(*(++ptr1))+(*(++ptr1)));
int x=((*(ptr2))+(*(++ptr2))+(*(++ptr2)));
int c=z+x;
printf("sum of array elements :%d \n",c);
}
int main()
{
int a[3]={10,20,30};
int b[3]={5,15,25};
sum(a,b);
}
```

Output :


```
sum of array elements :105

Process returned 0 (0x0)    execution time : 0.005 s
Press any key to continue.
```

Q2)
```c
#include<stdio.h>
void sum(int a[5],int b[5])
{
```

```c
int *ptr1 = &a[0];
int *ptr2 = &b[0];
int z=((*(ptr1))+(*(++ptr1))+(*(++ptr1))+(*(++ptr1))+(*(++ptr1)));
int x=((*(ptr2))+(*(++ptr2))+(*(++ptr2))+(*(++ptr2))+(*(++ptr2)));
int c=z+x;
printf("sum of array elements :%d \n",c);
}
int main()
{
int a[5],b[5];
printf("Enter elements in array 1 You can add only 5 elements: \n");
for(int i=0;i<5;i++)
{
scanf("%d",&a[i]);
}
printf("Enter elements in array 2 You can add only 5 elements: \n");
for(int i=0;i<5;i++)
{
scanf("%d",&b[i]);
}
sum(a,b);
}
```

Output :

Q3)
```c
#include<stdio.h>
void sum(int m,int n)
{
int a[m],b[n];
```

```c
printf("Enter elements in array 1: \n");
for(int i=0;i<m;i++)
{
scanf("%d",&a[i]);
}
printf("Enter elements in array 2: \n");
for(int i=0;i<n;i++)
{
scanf("%d",&b[i]);
}
int *ptr1 = &a[0];
int *ptr2 = &b[0];
int z=0,x=0;
for(int i=0;i<m;i++)
{
z=*ptr1+z;
*ptr1++;
}
printf("sum of arr1: %d \n",z);
for(int i=0;i<n;i++)
{
x=*ptr2+x;
*ptr2++;
}
printf("sum of arr2: %d \n",x);
int c=z+x;
printf("sum of array elements :%d \n",c);
}
int main()
{
int n,m;
printf("Enter number of elements in array 1: \n");
scanf("%d",&m);
printf("Enter number of elements in array 2: \n");
scanf("%d",&n);

sum(m,n);
}
```

Output :

```
Enter number of elements in array 1:
3
Enter number of elements in array 2:
5
Enter elements in array 1:
1
2
3
Enter elements in array 2:
4
5
6
7
8
sum of arr1: 6
sum of arr2: 30
sum of array elements :36

Process returned 0 (0x0)    execution time : 20.151 s
Press any key to continue.
```

Q4)

```c
#include<stdio.h>
void sum(int m)
{
int a[m],b[m];
printf("Enter elements in array 1: \n");
for(int i=0;i<m;i++)
{
scanf("%d",&a[i]);
}
printf("Enter elements in array 2: \n");
for(int i=0;i<m;i++)
{
scanf("%d",&b[i]);
}
int *ptr1 = &a[0];
int *ptr2 = &b[0];
int z=0,x=0;
for(int i=0;i<m;i++)
{
z=*ptr1+*ptr2+z;
*ptr1++;
*ptr2++;
}
for(int i=0;i<m;i++)
{
```

```c
int *ptr3= &a[i];
int *ptr4= &b[i];
x=*ptr3+*ptr4;
printf("sum of %d  elements of both the array: %d \n",i+1,x);
}
printf("sum of array elements :%d \n",z);
}
int main()
{
int n,m;
printf("Enter number of elements in both array: \n");
scanf("%d",&m);

sum(m);
}
```

Output :

```
Enter number of elements in both array:
5
Enter elements in array 1:
1
4
7
8
9
Enter elements in array 2:
1
4
2
4
6
sum of 1  elements of both the array: 2
sum of 2  elements of both the array: 8
sum of 3  elements of both the array: 9
sum of 4  elements of both the array: 12
sum of 5  elements of both the array: 15
sum of array elements :46

Process returned 0 (0x0)   execution time : 13.363 s
Press any key to continue.
```