

Chapter-2

Arrays

Practical Questions&Answers

1)Write a C++ program to input the marks in 5 subjects and find their average

```
#include <iostream>

using namespace std;

int main()

{

int i;

float mark[4],sum;

cout << "Enter the marks of your 5 subjects:: \n";

for(i=0; i<=4; i++)

{

cin >> mark[i];

}

for(i=0;i<=4;i++)

{

sum += mark[i];

}

float ave = sum/5;

cout << "Average Marks is::" << ave << '\n';

return 0;
```

}

2)Write a C++ program to read n elements to an array and print.

```
#include<iostream>

using namespace std;

int main(void)
{
    int a[100],n,i;

    cout<<"Enter the Limit";

    cin>>n;

    cout<<"Enter the elements";

    for(i=0;i<=n;i++)
    {
        cin>>a[i];
    }

    cout<<"Elements Of the Array are \n";

    for(i=0;i<=n;i++)
    {
        cout<<a[i];

        cout<<"\n";
    }
}
```

3)Write a Program to read n elements to an array and find the largest element

```
#include<iostream>

using namespace std;

int main()
```

```
{  
  
int a[100],n,i,Large;  
  
cout<<"Enter the Limit";  
  
cin>>n;  
  
cout<<"Enter the elements"<<"\n";  
  
for(i=0;i<=n;i++)  
{  
  
cin>>a[i];  
  
}  
  
Large=a[0];  
  
for(i=1;i<=n;i++)  
{  
  
if(a[i]>Large)  
{  
  
Large=a[i];  
  
}  
  
else  
  
{  
  
Large=Large;  
  
}  
  
}  
  
cout<<"The Largest number is "<<Large;  
  
}
```

4)Write a program to input n elements to an array and find the smallest element

```
#include<iostream>
```

```
using namespace std;

int main()

{

int a[100],n,i,Small;

cout<<"Enter the Limit";

cin>>n;

cout<<"Enter the elements"<<"\n";

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

{

cin>>a[i];

}

Small=a[0];

for(i=1;i<=n;i++)

{

if(a[i]<Small)

{

Small=a[i];

}

else

{

Small=Small;

}

}

cout<<"The Smallest number is "<<Small;

}
```

5)Write a program to read 5 elements to an array and print the elements with their memory locations.

```
#include<iostream>

using namespace std;

int main()
{
    int a[4],i;

    cout<<"Enter the elements"<<"\n";

    for(i=0;i<=4;i++)
    {
        cin>>a[i];
    }

    cout<<"The elements and their locations"<<"\n";

    for(i=0;i<=4;i++)
    {
        cout<<"a"<<"[" <<i <<"]"<<"="<<a[i];

        cout<<"\n";
    }

    return 0;
}
```

6)Write a program using nested loop that inputs a number n which generates an output as follows.

Hint:If the value of n is 5 the output will be as

25

25 16

25 16 9

25 16 9 4

```
#include<iostream>

using namespace std;

int main()

{

    int i,j,n,temp;

    cout<<"Enter the number";

    cin>>n;

    for(i=1;i<=5;i++)

    {

        temp=n;

        for(j=1;j<=i;j++)

        {

            if(n>1)

            {

                cout<<"\t"<<temp*temp;

                temp--;

            }

            else

            {

                break;

            }

        }

        cout<<"\n";

    }
```

```
}  
  
return 0;  
  
}
```

7) Write a program to produce the following design

```
4  
4 3  
4 3 2  
4 3 2 1
```

```
#include<iostream>  
  
using namespace std;  
  
int main()  
{  
  
    int i,j,n;  
  
    for(i=1;i<=4;i++)  
  
    {  
  
        n=4;  
  
        for(j=0;j<i;j++)  
  
        {  
  
            cout<<n<<"\t";  
  
            n=n-1;  
  
        }  
  
        cout<<"\n";  
  
    }  
  
}
```

