Q1. Declare a vector with Initialization and print the elements.

#include <iostream>

#include <vector>

using namespace std;

int main()

{

vector <int> v = {10, 20, 30, 40, 50};

for(int x : v) cout<<x<<" ";

}

Q2. Declare a vector without initialization, insert some elements and print

#include <iostream>

#include <vector>

using namespace std;

int main()

{

vector <int> v;

v.push\_back(10);

v.push\_back(20);

v.push\_back(30);

v.push\_back(40);

for(int x : v) cout<<x<<" ";

}

Q3. Write a function to print the element of a vector and take input from the user.

#include <iostream>

#include <vector>

using namespace std;

int main()

{

vector <int> v;

int x = 0;

cout<<"Enter elements"<<endl<<endl;

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

{

cout<<i<<") ";

cin>>x;

v.push\_back(x);

}

cout<<endl<<endl;

for(int x : v) cout<<x<<" ";

}

Q4. Write a program to Copy one vector’s elements to another vector.

#include <iostream>

#include <vector>

using namespace std;

int main()

{

vector <int> v = { 10, 20, 30, 40, 50};

vector <int> v2 = v;

for(int x : v2) cout<<x<<" ";

}

Q5. Find largest and smallest elements in a vector

#include <iostream>

#include <vector>

using namespace std;

int main()

{

vector <int> v = {20, 50, 10, 40, 30};

int small = 0, large = 0;

for(int i = 0, j = i + 1; j < v.size(); j++)

{

if(v[i] < v[j])

{

small = v[i];

}

else

{

small = v[j];

i = j;

}

}

cout<<"smallest element = "<<small<<endl;

for(int i = 0, j = i + 1; j < v.size(); j++)

{

if(v[i] > v[j])

{

large = v[i];

}

else

{

large = v[j];

i = j;

}

}

cout<<"largest element = "<<large;

}

Q6. Write a program to reverse vector elements

#include <iostream>

#include <vector>

#include <iterator>

using namespace std;

int main()

{

vector <int> v = {10, 20, 30, 40, 50};

vector <int>::reverse\_iterator rit = v.rbegin();

while(rit != v.rend())

{

cout<<\*rit<<" ";

rit ++;

}

}

Q7. Write a program to find sum of vector elements

#include <iostream>

#include <vector>

using namespace std;

int main()

{

vector <int> v = {50, 10, 40, 30, 20};

int sum = 0;

for(int i = 0; i < v.size(); i++)

{

sum = sum + v[i];

}

cout<<"sum = "<<sum;

}

Q8. Write a program to find common elements between two vectors.

#include <iostream>

#include <vector>

using namespace std;

int main()

{

vector <int> v1 = {50, 10, 40, 30, 20};

vector <int> v2 = {90, 70, 30, 80, 10};

vector <int> common;

for(int i = 0; i < v1.size(); i++)

{

for(int j = 0; j < v2.size(); j++)

{

if(v1[i] == v2[j])

{

common.push\_back(v2[j]);

}

}

}

cout<<"common element = ";

for(int x : common) cout<<x<<" ";

}

Q9. Write a program to Push and print elements in a float vector

#include <iostream>

#include <vector>

using namespace std;

int main()

{

vector <float> v;

v.push\_back(10.2);

v.push\_back(15.5);

v.push\_back(20.78);

for(float x : v) cout<<x<<endl;

}

Q10. Write a program to check whether an element exists in a vector or not.

#include <iostream>

#include <vector>

using namespace std;

int main()

{

vector <int> v = {10, 20, 30, 40, 50, 60, 70};

int ch = 0, flag = 1;

cout<<"Enter element to find = ";

cin>>ch;

for(int i = 0; i < v.size(); i++)

{

if(ch == v[i])

{

cout<<"Element found";

flag = 0;

break;

}

else

{

continue;

}

}

if(flag)

{

cout<<"Element not found";

}

}