Q2

What happens if an exception is not caught in a C++ program?

answer-

If an exception is not caught, your program will terminate immediately

(and the stack may not be unwound, so your program may not even clean up after itself properly).

Q3

A try-catch block is used to handle exceptions that are thrown within the try block.

The catch block contains the code that will be executed if an exception is thrown.

A try-throw-catch block is similar, but in this case the throw statement is used explicitly within

the try block to throw an exception, rather than the exception being thrown implicitly by the code.

The catch block would then handle the exception that was thrown explicitly.

In general try-catch is used to handle the exception that occurs during the execution of the try block where as

try-throw-catch can be used to handle the exception that might be thrown as a result of some specific condition.

Q4::

How do you re-throw an exception in C++? WITH EXAMPLE

answer-

Rethrowing an expression from within an exception handler can be done by calling throw, by itself, with no exception.

This causes current exception to be passed on to an outer try/catch sequence.An exception can only be rethrown from within a catch block.

When an exception is rethrown, it is propagated outward to the next catch block.

example-

#include<iostream>

using namespace std;

main()

{int a;

int b;

again:cin>>a;

cin>>b;

try// write the code in this block which can cause exception

{

if(b!=0)

{

int c=a/b;

cout<<c;

cout<<"\ndone";

}

else

throw (b);//throwing the exception

}

catch(int i)//this will catch the exception

{

cout<<"exception caught b="<<b;

cout<<"\nenter the values again\n";

goto again;

}

cout<<"\nend";

}

Q5::

#include <iostream>

#include <exception>

using namespace std;

class MyException : public exception{

public:

const char \* what() const throw()

{

return "Attempted to divide by zero!\n";

}

};

int main()

{

try

{

int x, y;

cout << "Enter the two numbers : \n";

cin >> x >> y;

if (y == 0)

{

MyException z;

throw z;

}

else

{

cout << "x / y = " << x/y << endl;

}

}

catch(exception& e)

{

cout << e.what();

}

}

Answer-

Enter the two numbers :

2

0

Attempted to divide by zero!