CPA Chapter 7 Practice Quiz

C++ Institute Volunteer Program 2015-2016

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AUTHOR'S BIO:	I am working as a C/C++ programmer at Siemens.	

Chapter: 7	Exceptions		
Section: 1,2,4			
C++ Associate (CPA)	Chapter: 7	Section: 1,2,4	Question type: Single-choice
Subject: Exceptions			Question Number: 1

Question: What is the output of the following code fragment? (assumption: all #include and the rest of the code are correct)

```
void ErrorThrower1() {
   throw ( string("throws an error"));
}
void ErrorThrower2(){
   try{ ErrorThrower1(); }
   catch(...){ throw; }
}
void ErrorThrower3 () throw(){
   ErrorThrower2();
}
int main(){
   try{ ErrorThrower3(); }
   catch(string){
      cout<<"Error caught";
   }
   return 0;
}
```

Answers:

A) Compilation error
B) Runtime error
C) Error caught
D) None of the above

Chapter: 7	Exceptions		
Section: 1,2,4			
C++ Associate (CPA)	Chapter: 7	Section: 1,2,3,4	Question type: Single-choice
Subject: Exceptions			Question Number: 2

Question: What is the output of the following code fragment? (assumption: all #include and the rest of the code are correct)

```
void unexp(void) {
        cout << "b" << endl;
        throw;
}
void f() throw(bad_exception){
   try{int a=1/0;}
   catch(...){cout<<"a"; throw;}
}
int main(){
   set_unexpected(unexp);
   try { f();}
   catch (bad_exception bad){
      cout<< "c";
   }
    return 0;
}
```

Answers:

A) b
B) c
C) Runtime Error
D) a

Chapter: 7	Exceptions		
Section: 1,2,4			
C++ Associate (CPA)	Chapter: 7	Section: 1,2,4	Question type: Single-choice
Subject: Exceptions			Question Number: 3

Question: What is the output of the following code fragment? (assumption: all #include and the rest of the code are correct)

```
class ToErr:public invalid_argument, public length_error{
public:
  explicit ToErr(string message)
   :invalid_argument(message),
   length_error(message){}
};
class Array{
public:
   int size;
   Array(int size)throw(ToErr){
      if (size <=0) throw ToErr("size to small");
   }
   };
int main(){
   try{  Array a(-1);}
   catch(ToErr exp) { cout<<exp.what(); }
   return 0;
}
```

Answers:

A) size to small
B) Compilation Error
C) Runtime Error
D) main returns 0

Chapter: 7	Exceptions		
Section: 1,2,4			
C++ Associate (CPA)	Chapter: 7	Section: 1,2,4	Question type: Single-choice
Subject: Exceptions			Question Number: 4

Question: What is the output of the following code fragment? (assumption: all #include and the rest of the code are correct)

```
void ToRemember() throw(float){
   throw(4.2);
}
int main(){
   try{
      ToRemember();
   }catch(float){
      cout<<"That was close";
   }
}
```

Answers:

A) Runtime Error
B) Compilation Error
C) That was close
D) main returns 0

Correct answers: Q1 - B
Explanation: B: the function “Error Thrower3” does not throw the exception further to the main program so a runtime error is generated
Correct answers: Q2 - C
Explanation: C: Integer divided by 0 is not a standard C++ exception so the program will break at runtime
Correct answers: Q3 - B
Explanation: B: both “invalid_argument” and ” length_error” classes implement the “what” method and the compiler. “ToErr” class implements inherits the both classes so when you call the “what” method the call is ambiguous.
Correct answers: Q4 - A
Explanation: B: “4.2” is type double not float

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AUTHOR'S BIO:	Becoming a programmer is deeply connected—the three year-long study of cybersecurity that students learn about on their first college day and do not stop thinking about until their last. It forces them to draw from all they have learned. It is my test of perseverance, creativity, and knowledge that appeared to be also, rather unexpectedly, the catalyst in my decision to study C++ programming. Vitali Kremez, CFE, CNDA, CEH, Sec+, Linux+, LPIC1, Suse CLA.	

Chapter: 7	Exceptions		
Section: 1	How are exceptions thrown?		
C++ Certified Programmer Associate (CPA)	Chapter: 7	Section: 1	Question type: Multiple-choice
Subject: 7.1.11 How are exceptions thrown?			Question Number: 1

Question: Fill in the following blanks to accept input of two integers and print their division value to the screen. Use throw and catch keywords to address the division by 0 scenario.

```
    ___ {
    int x;
    int y;
    cin >> x >> y;
}
    if (y == 0) {
     ___ 0;
    cout << x / y << endl;
    }
    ___ (int mError) {
    cout << “Mathematical Error” << endl;
    }
```

Answers:

A. catch; throw; try
B. catch; try; throw
C. throw; catch; try
D. try; throw; catch

Correct answer: **Q1 - D. try; throw; catch**
Explanation: N/A