JAVA HomeWork 8 – Exception Handling

Q1: **The Correct Answer is D**

Every `'try'` block must be followed by a `'catch'` or `'finally'` block.

Q2: **The Correct Answer is B**

If there is a `'catch'` block that `'catch'` block must be placed after a `'try'` block for it to catch the exception from `'try'` block as for the `'finally'` block can be placed after both `'try'` and `'catch'` blocks.

Q3: **The Correct Answer is D**

`'new RuntimeException();'` https://docs.oracle.com/javase/7/docs/api/java/lang/RuntimeException.html

Q4: **The Correct Answer is A**

An `'Error'` is a subclass of Throwable that indicates serious problems that a reasonable application should not try to catch. Most such errors are abnormal conditions.

Q5: **The Correct Answer is D**

`'score'` only defined in `'try'` block if it was defined before try block it would have been worked.

Q6: **The Correct Answer is B**

A checked exception is a type of exception that must be either caught or declared in the method in which it is thrown. In contrast, we don't have to catch unchecked exceptions which are subtypes of Error and RuntimeException. Methods also don't have to declare to throw unchecked exceptions.

Q7: **The Correct Answer is A**

The `'throw'` keyword in Java is used to explicitly throw an exception from a method or any block of code. We can throw either checked or unchecked exception. The `'throw'` keyword is mainly used to throw custom exceptions. `'throws'` is a keyword in Java which is used in the signature of method to indicate that this method might throw one of the listed type exceptions. The caller to these methods has to handle the exception using a `'try-catch'` block.

Q8: **The Correct Answer is B**

If there are more than one catch block for the exceptions that is sub or super classes of other exceptions must be in order from narrower to broader exceptions. Ex: ClassCastException -> RuntimeException -> Exception

Q9: **The Correct Answer is D**

't' was not declared at that scope but if it was 'throw aioobe;' in stead of 'throw t;' the output would have been 'AC, followed by a ArrayIndexOutOfBoundsException.'

Q10: **The Correct Answer is C**

If '//p3' was to put in a 'try-catch(Exception e)' block the code or declare main method as 'throws Exception' the code would get compiled and output 'WallsOpening!'

Q11: **The Correct Answer is B**

'Exception' is super class of all other answers while other answers all 'unchecked exceptions', Answer B includes 'checked exceptions' that must be handled.

Q12: **The Correct Answer is A**

'try' always gets executed first and if there is a 'catch' block that catches the exception that occur in 'try' block gets executed next and 'finally' block after that. If there are no 'catch' block for occuring exception 'finally' block gets executed and a stack trace is printed at runtime.

Q13: **The Correct Answer is C**

There are conditions where 'finally' block does not get executed one of them is 'ThreadDeathError'. 'finally' block always gets executed if thread is still live. 'finally' blocks can throw an exception and they need brackets.

Q14: **The Correct Answer is C**

This code does not compile because 'IOException' catch block already catched that exceptions can be catched by 'FileNotFoundException' catch block. For multiple 'catch' blocks, they have to go from narrower to broader exception scales.

Q15: **The Correct Answer is C**

Try has to be followed by a 'catch' or 'finally' block and both can be used with a 'try' block at the same time.

Q16: **The Correct Answer is B**

An application that throws an exception can be handled by a try-catch block so it doesnt necessarily terminates after throwing an exception.

Q17: **The Correct Answer is A**

Methods declares that they can produce exceptions but actually they are never produced any.

Q18: **The Correct Answer is B**

A class that implements an interface with a method that throws an exception has to throw an equal exception or a subclass of that exception.

Q19: **The Correct Answer is D**

Exceptions are in `'java.lang'` package which provides classes that are fundamental to the design of the Java programming language and this package is imported by default so it doesn't needs be imported.

Q20: **The Correct Answer is C**

The catch block at `'g3'` line doesnt have the brackets.

Q21: **The Correct Answer is B**

A checked exception is a type of exception that must be either caught or declared in the method in which it is thrown. An Error is a subclass of Throwable that indicates serious problems that a reasonable application should not try to catch.

Q22: **The Correct Answer is B**

The `'CastleUnderSiegeException'` isnt a subclass of `'RuntimeException'` that the method declared it throws. They are actually at same subclass level with `'RuntimeException'`.

Q23: **The Correct Answer is A**

It is possible to write a code like this for example a `'ClassCastException'` can be catched by both a catch block that catches `'ClassCastException'` and `'RuntimeException'` but it has to maintain this order and the first one will catch the exception.

Q24: **The Correct Answer is f**

The called methos is declared that it throws `'Exception'` for it to compile `'Exception'` must be caught in a catch block or main should be declared as `'throws Exception'` .

Q25: **The Correct Answer is C**

A stack trace for `'ClassCastException'` can not be produced by this code because this code said to be compiles without an issue so values omitted must be a boolean or nothing at all which will produce `'NullPointerException'`. `'ArrayIndexOutOfBoundsException'` can be produced if less than 10 values omitted.

Q26: **The Correct Answer is B**

`'StackOverflowError'` thrown when a stack overflow occurs because an application recurses too deeply and floods the memory. `'NullPointerException'` thrown when an application attempts to use null in a case where an object is required.

Q27: **The Correct Answer is**

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Q28: **The Correct Answer is D**

Catch block has to be right after a try block.

Q29: **The Correct Answer is B**

There can't be more than one finally block and there can be as much as catch blocks java can handle.

Q30: **The Correct Answer is D**

The code compiles and abstract class attribute count is 0 if not changed afterwards and division by zero throws a `'/ by 0 exception'`

Q31: **The Correct Answer is B**

If catch block throws an exception or has a `'return'` keyword java executes finally block before that catch block.

Q32: **The Correct Answer is A**

The declaration at `'m1'` was wrong it's missing an "s" character (**throws**).

Q33: **The Correct Answer is A**

Casting a class to a subclass of the same class is not possible and throws `'ClassCastException'`.

Q34: **The Correct Answer is A**

Throwable is superclass of both Exception and Error classes and can be used in catch block.

Q35: **The Correct Answer is D**

`'finally'` gets executed before the `'String'` is returned and answer is D because in question output concatenated with `'-'` but in the code they concatenated with `':'`. If we ignore that correct answer would be **B**.

Q36: **The Correct Answer is A**

If there are more than one catch block for the exceptions that is sub or super classes of other exceptions must be in order from narrower to broader exceptions. Ex: ClassCastException -> RuntimeException -> Exception

Q37: **The Correct Answer is C**

If `'ComputerCaughtFireException'` occurs while thread is on all data should be uploaded on a server and finally block should kill the thread gracefully.

Q38: **The Correct Answer is C**

This code does not compile because while overriding a method from super class the exception that the method throws must be same or narrower not broader.

Q39: **The Correct Answer is D**

A throw keyword must be handled by a try-catch block. If throw keyword is in a method it can be ignored by the time being if that method is going to be called, the call should be in a try-catch block.

Q40: **The Correct Answer is D**

`'throw new RuntimeException();'` **new** keyword was missing in code.

Q41: **The Correct Answer is C**

The exception from try block being handled by catch block but because there is another exception happening at catch block finally block interrupts that exception and gets executed first.

Q42: **The Correct Answer is D**

The return type int is not compatible for all override methods in the answers if we ignore that correct answer would be **A**.

Q43: **The Correct Answer is D**

The catch block missing variable name it should be (**Error e**).

Q44: **The Correct Answer is D**

The RuntimeException stack trace and it's message from finally block gets printed at runtime.

Q45: **The Correct Answer is C**

These two exceptions can be in any order because they dont have a parent-child relationship between them.

Q46: **The Correct Answer is D**

Can't `'implement'` an Exception class you `'throws'` it and appearently "String uhOH[]" is a valid argument for entry point in JVM.

Q47: **The Correct Answer is B**

`'finally'` block get executed everytime if thread doesn't die.

Q48: **The Correct Answer is B**

"A" might cause an IOException because the file in use, C might cause a ClassCastException and D might cause a StackOverflowException.

Q49: **The Correct Answer is C**

The variable e was already defined in that catch block cant re-define it as another exception's variable.

Q50: **The Correct Answer is B**

The code in finally block throw Exception which includes `'checked exceptions'` that must be handled. That's why code does not compile.