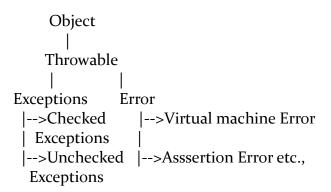
1. What is exception?

An exception is an event occurs during the execution of program which distrupts the normal flow of the programs instructions.

2. What is exception handling?

Exception handling is the mechanism to handle run time errors to maintain the normal flow of the application.

3. Exception Hierarchy?



- 4.) What is checked exceptions and how will you handle it?
- * Checked exceptions are exceptions that occur in compile time ,they are also known as compile time exceptions
- * Checked Exceptions are handled by rethrowing using throws keyword and or by using try catch block
- 5.) What is unchecked exceptions and how will you handle it?
- *Unchecked exceptions are exceptions that occur in runtime, they are also known as runtime exceptions
 - * Unchecked exceptions are not required to be handled
- 6.) Types of handling checked exceptions?

Checked Exceptions are handled

- * By rethrowing using throws keyword and
- *By using try catch block
- 7.) Why do we need the finally block
- *Finally block contains important code
 - *Finally block will always execute whether the exception rise or not and whether the exception

is handled or not

*Finally block contains all the crucial statements regardless of exception occurs or not

8.) Is multiple catch blocks allowed? Answer: yes

9.) What is the output of below program

```
try{
int num=14/0;
}catch(Exception ex)
{
Sop("base exception");
}catch(ArithmeticException e){sop("child exception")}
```

Answer: Compilation error occurs saying "Unreachable catch block for Arithmetic Exception. It is already handled by the catch for Exception".

10.)What is try with resources?

- *The try-with-resources statement is a try statement that declares one or more resources.
- *A resource is an object that must be closed after the program is finished with it.
- * The try-with-resources statement ensures that each resource is closed at the end of the statemen
- 11.) Difference between the closeable and autocloseable?
- 1. Closeable was introduced with JDK 5 whereas AutoCloseable was introduced with JDK 7+.
- 2. Closeable extends IOException whereas AutoCloseable extends Exception.
- 3.Closeable interface is idempotent (calling close() method more than once does not have any side effects) whereas AutoCloseable does not provide this feature.
- 12.) Which method is present in closeable?

Answer: The close() method

- 13.) Name few classes implementing the closeable?
 - *AbstractSelectableChannel
 - *AbstractSelector
 - *BufferedReader
 - *BufferedWriter
 - *BufferedInputStream
 - *BufferedOutputStream

- *CheckedInputStream
- *CheckedOutputStream
- 14.) Types of filehandling classes?

Byte streams Character streams

1.InputStream 1.Reader

*FileInput *FileReader

*FileOutput *FileWriter

15.) What is the return type of read method() in FileReader class?

The read() method of FileReader class in Java returns a single character in the form of an integer value that contains the character's char value.

- 16.) Name the exceptions come across while working with filehandling?
 - *IOException (all are checked exceptions in java.io.package)
 - *FileNotFoundException
 - *EOFException
 - *InterruptedIOException
 - * NotSerializableException
 - *InvalidClassException
 - *InvalidObjectException
- 17.) FileReader constructor throws which exception?

Answer:FileNotFoundException

18.)read() method and close() method throws which exception?

Answer: read() method and close() method throws IO Exception

19.) Name few unchecked exceptions and checked exceptions?

UncheckedExceptions

- *NullPointerException
- *IndexOutOfBoundsException
- *ClassCastException
- ${\bf *Invalid Argument Exception}$
- *ArithmeticException

CheckedExceptions

- *EOFException
- * InvalidClassException
- *NoSuchFieldException
- *NoSuchMethodException
- *FileNotFoundException