## 1) Explain the different types of Errors in Java ?

**Ans:** In any programming language we categories errors into 2 types .

1. Syntax error/ CompileTime Mistakes
2. Logical Error/ RunTimeMistakes

**Syntax error/CompileTime Mistakes**

- It refers to the Mistakes done bye the programmer with respect to syntaxes.
- These Mistakes are identified by the compiler,so we say it as "CompileTimeMistake".

**Logical Error/RunTimeMistakes**

- It refers to the Mistakes done by the programmer in terms of writing a logic.
- These Mistakes are identified by jvm during the execution of a program, so we say it as "RunTimeMistake".

## 2) What is an Exception in Java.

**Ans:** An unwanted/ expected event that disturbs the normal flow of execution of a program is called "Exception handling".

- The main objective of  Exception Handling is to handle the exception.
- It is available for graceful termination of program.

## 3) How can you handle exceptions in Java? Explain with an example.

**Ans:** Exception handling can be performed using:

Try: the set of statements or code which requires monitoring for an exception is kept under this block.

Catch: this block catches all exceptions that were trapped in the Try block .

Finally: this block is always performed irrespective of the catching of exceptions in the tttv or catch block.

**Ex:** class Launch

```
    {
        public static  void main(String args[])
        {
            try
            {
                System.out.println("Hello" + " "+1/0);
            }
            catch(ArthimeticException e)
            {
                System.out.println("World");
            }
        }
    }
```

## 4) Why do we need exception handling in Java?

**Ans:** If there is no Try and catch block while an exception occurs,the program will terminate. Exception handling ensures the smooth running of a program without program termination.

**5) What is the difference between exception and error in Java?**

**Ans:** Errors typically happen while an application is running. For instance, Out of Memory Error occurs in case the JVM runs out of memory. On the other hand, exceptions are mainly caused by the application. For instance, NullPointerException happens when an app tries to get through a null object.

**6) Name the different types of exceptions in Java?**

**Ans:** Based on handling by JVM, there are typically two types of exceptions in Java:

**Checked:** Occur during the compilation. Here, the compiler checks whether the exception is handled and throws an error accordingly.

**Unchecked:** Occur during program execution. There are not detectable during the compilation process.

**7) Can we just use try instead of finally and catch blocks? Give an example.**

**Ans:** No, doing so will show a compilation error. Catch or finally block must always accompany try block. We can remove either finally block or catch block, but never both.