1.What is Exception Handling?

An exception is a runtime error. An exception is an abnormal condition that arises in a java program when an error is encountered. Java interpreter when encounter an exception (runtime error) it creates an object of that exception type and throws it to the java Runtime. Actually the interpreter informs that an error has taken place. If this object created by the java runtime is not handled or dealt with, the interpreter generates an error message and terminates the program prematurely. If we want to continue with the remaining part of the program, then the exception object is to be catched to deal with the exception and take the necessary steps. This mechanism is known as Exception Handling.

2.How can one describe the exception ?

So far we are using our own exception message, we can also use Java's building exception diseriptim mechanism for e.g. in the above example we can write as

catch(ArithmaticException ae) {

system.out.println(ae);

}

When an exception really do take place we see the message java.lang. ArithmaticException:\by Zero.   If we want to known the origin of the exception we use the printStackTrace() method e.g. referring to the above ex. We write —

catch(ArithmaticException ae) {

system.out.println(ae);

ae printStackTrace();

}

java.lang. ArithmaticException:\by Zero

at RandomDivision.main (RandomDivision.java: I)

3. Write down some built in Exception classes in Java.

Some of the important built in Exception in Java are —

1. ArithmeticException(class).
2. ArrayIndexOutofBoundsException(class).
3. ArrayStoreException(class).
4. ClassCastException(class).
5. NullPointer Exception(class).
6. IOException Exception(class).
7. Interrupt Exception(class).
8. StringIndexOutofBound Exception(class).
9. NumberFormat(class).
10. FileNotFound Exception(class).

4. Describe the utility of throw clause.

Some times we may not depend upon the java interpreter to throws an exception object, we may ourselves throw an exception (object) to the java runtime. This is accomplished by the throw clause.