* Exception Handling *
* Assignment Solutions *

Q.1 Explain different types of Errors in Java:

Ans-1 In any programaming language we
categorise errors into 2 types
1. Syntax Error / Compile Time ~~Error~~ Mistakes
2. Logical Error / RunTime Mistakes.

Q.2 (1.) Syntax Error / Compile Time Mistakes
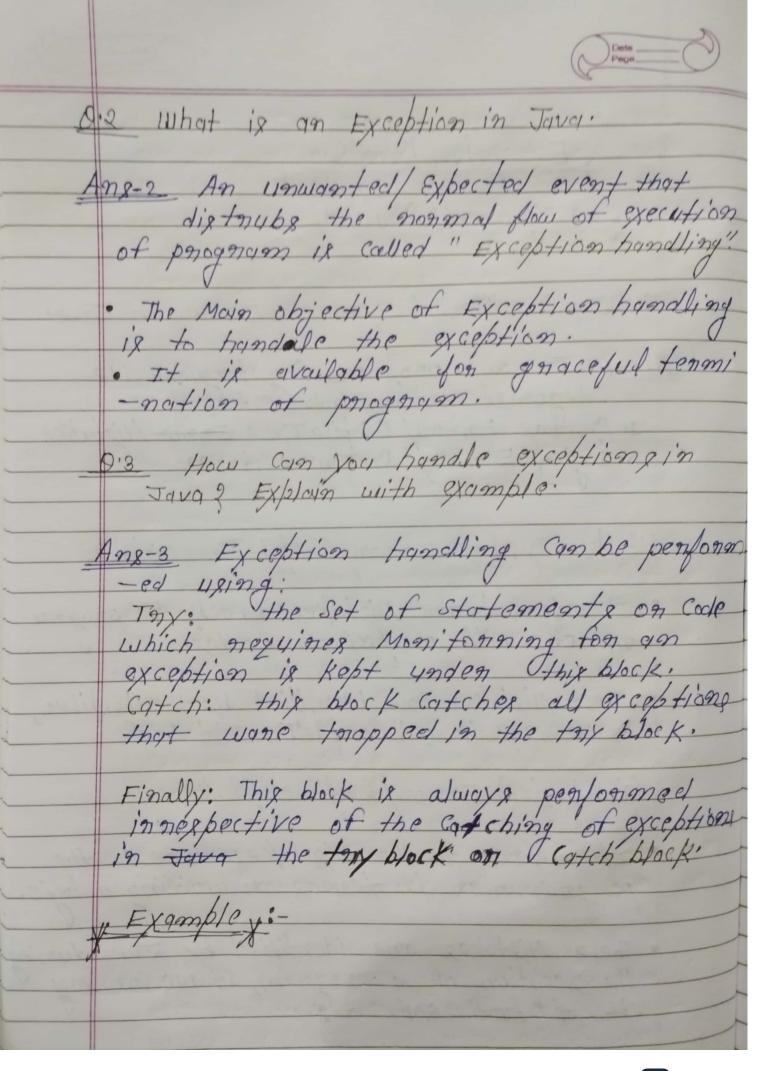
- It refers to the Mistakes done by the programmer with respect to Syntax.

- These Mistakes are identified by the Compiler, So we say it as "Compile Time Mistakes".

(2) Logical Error / Runtime Mistakes

- 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 can say it as "Runtime Mistakes".

Q.2 What is an Exception in Java.

Ans-2 An unwanted/expected event that distrubs the normal flow of execution of program is called "Exception handling".

- The Main objective of Exception handling is to handale the exception.
- It is available for graceful termi-nation of program.

Q.3 How can you handle exceptions in Java? Explain with example.

Ans-3 Exception handling can be perform-ed using:

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

Catch: this block catches all exceptions that wane trapped in the try block.

Finally: This block is always performed inirexpective of the catching of exceptions in Java the try block on catch block.

 # Example :-

```
Class Lanuch
  {
    public static void Main(String args[])
    {
      try
      {
        System.out.print("Hello"+" "+1/0);
      }
      catch(Ainthmetic Exception e)
      {
        System.out.print("World");
      }
    }
  }
```

Q.4 why do we need exception handling in Java?

Ans-4 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.

Q.5 what is the difference between exception and error in Java?

Ans-5 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, Null pointer Exception happens when an app tries to get through a null object.

Q.6 Name the different types of exceptions in Java.

Ans-6 Based on handling by JVM, there are typically two types of exceptions in Java:

checked: occur during the Compilation. Here, the Compiler checks weither the exception is handled and throws an error accordingly.

unchecked:- occur during program execution. these are not detectable during the Compilation process.

Q.7 Can we Just use try instead of finally and catch blocks? Give an example.

Ans-7 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.