Exception Handling:

1. What is Exception?

▼ Ans

- Exception is a runtime error or interruption which stops the Normal program execution flow.

2. What is Error ?

▼ Ans

3. What is Runtime error?

▼ Ans

- Runtime error are exception will occur when the java program contains logical mistake.

4. Difference between Exception and Error ?

▼ Ans

5. What is Exception handling ?

▼ Ans

- Process of suppressing an exception such that the normal program execution flow will not get interrupted is called Exception Handling.
- Exception can be handled in 2ways.

▼ try, catch and finally block

▼ try block

- try block is used to write the code that might throw an exception.

▼ catch block

- catch block is used to handle the Exception which is written in the try block by declaring the type of exception within the parameter.

▼ finally block

- Finally block is used to execute the important code of the program. It is executed whether an exception is handled or not.
- Usually costly resources are closed in finally block(DB connection , IO Stream).

▼ throws keyword

6. Why we want Exception Handling ?

▼ Ans

- It helps to execute normal flow of the program even unexpected events occur.

7. Rules for try and catch block ?

▼ Ans

- Catch block gets executed only if there are any exception in try block.
- At any point only one exception can occur in try block , multiple exception cannot occur at same time.
- Once an exception occurs in the try block , the control immediately comes out of try block and without executing the remaining code within try block.
- When control comes out of try block then if matching catch block is found , it gets executed , if not program gets terminated.
- Single exception only one catch block gets executed.
- Once control comes out of try block then it will not go back to try block again
- Catch block gets executed only if there some error in try block.

8. When to use Single catch block and When to use Multiple catch block ?

▼ Ans

▼ Whenever handling scenarios is same for different Exception then we go with Single catch block.

▼ Whenever handling scenarios is different for different Exception then we go with Multiple catch block.

9. Explain the Types of Exception ?

▼ Ans

There are 2 types of Exception

▼ Checked Exception

- If the Exception are know by compiler and mandatory to handle then these exception belongs to a category called Checked Exception.

▼ Note:

- Wherever throws is there in inbuilt method, it will be checked exception.

1. Throwable
2. Exception
3. SQLException
4. ClassNotFoundException
5. IOException
6. FileNotFoundException

▼ Unchecked Exception

- If the Exception are not know by compiler and not mandatory to handle then these exception belongs to a category called Unchecked Exception.
- RunTimeException
- ArrayIndexOutOfBoundException
- ArithmeticException
- ClassCastException
- NullPointerException

10. What is Custom Exception ?

▼ Ans

- Whenever the pre-defined exception are not suitable for user scenarios then it is possible to create our own Exception called Custom Exception.
- Custom Exception are user defined Exception can be created by creating a class extending with Throwable / Exception / RunTimeException classes.
- If Custom Exception extends throwable or Exception class then Custom Exception will become Checked Exception. if it extends RunTimeException class then it will become Unchecked Exception.
- We can rise either pre-defined or user-defined exception by using throw keyword.
- “throw” keyword is basically used in order throw an Exception Object. It can throw only one Exception at a Time.

11. What is throws keyword ?

▼ Ans

- throws is a keyword which is used with method declaration , it is used to indicate the
  possibility of exception from a method.
- Using throws we can indicate multiple exceptions. but It does not throw an exception.
- When we call a method which has throws declaration , then we have to handle the code by
  using try and catch block

12. Difference between “throw” and “throws” ?

▼ Ans

No.	throw	throws
1)	Java throw keyword is used to explicitly throw an exception.	Java throws keyword is used to declare an exception.
2)	Checked exception cannot be propagated using throw only.	Checked exception can be propagated with throws.
3)	Throw is followed by an instance.	Throws is followed by class.
4)	Throw is used within the method.	Throws is used with the method signature.
5)	You cannot throw multiple exceptions.	You can declare multiple exceptions e.g. public void method()throws IOException,SQLException.

13. What is try, catch, finally, throw, throws Keyword ?

▼ Ans

Keyword	Description
try	The "try" keyword is used to specify a block where we should place exception code. The try block must be followed by either catch or finally. It means, we can't use try block alone.
catch	The "catch" block is used to handle the exception. It must be preceded by try block which means we can't use catch block alone. It can be followed by finally block later.
finally	The "finally" block is used to execute the important code of the program. It is executed whether an exception is handled or not.
throw	The "throw" keyword is used to throw an exception.
throws	The "throws" keyword is used to declare exceptions. It doesn't throw an exception. It specifies that there may occur an exception in the method. It is always used with method signature.

14. Explain all Exceptions with an example ?

▼ Ans

15. Where to close costly resources ?

▼ Ans

- In finally block

16. How many types of error in java ?

▼ Ans

▼ Compile Time Error :

- Compile time error occurs because of an incorrect syntex.

▼ Run Time Error :

- Run Time Error occurs because insufficient memory can often trigger a runtime error.

▼ Logical Error :

- Logical error occurs because error are occurred by programmers.

15. Difference between AIOOBE an ASE exception ?

▼ Ans

16. What are custom exception and how can we create custom exception ?

▼ Ans

17. Are compile time errors come under exception ?

▼ Ans

18. What is use of printStackTrace() method ?

▼ Ans

19. What is unreached catch block error ?

▼ Ans

20. How to create custom exception in java ?

▼ Ans

21. Can checked exception occur at complied time ?

▼ Ans

22. Is there any difference between throw and throws, throwable in Exception Handling ?

▼ Ans

23. Explain the difference types of exception in java ?

▼ Ans

24. What is the difference between exception and error in java ?

▼ Ans

25. What is null pointer Exception ?

▼ Ans

- Is a run time exception when object reference is field with null value when the program is executing when its finds null value during execution it throws null pointer exception.

26. When Exception are raised ?

▼ Ans

- Every Exception will raise on runtime.

27. What is difference between Exception and Error ?

▼ Ans

28. What is the super most class Exception hierarchy ?

▼ Ans

29. What is the difference between checked and unchecked exception ?

▼ Ans

30. Explain the steps to define custom Exception ?

▼ Ans

31. Can we write finally block inside another finally block ?

▼ Ans

32. How to make Custom Exception as Checked or Unchecked ?

▼ Ans

33. Can we declare main method as throws ?

▼ Ans

34. Is it possible throw an inbuilt exception ?

▼ Ans

35. Is it possible to write try and finally without catch block ?

▼ Ans

36. Name the method to debug the Exception ?

▼ Ans

37. Explain NullPointerException ? How do you handle NullPointerException ?

▼ Ans

38. It is possible write try, catch block inside the catch block?

▼ Ans

39. What is difference between PrintStackTrace and get message ?

▼ Ans