1. Which of the following is the **superclass** of all exceptions in Java?
a) Throwable
b) Exception
c) RuntimeException
d) Error

---

2. What is the parent class of both `Exception` and `Error`? a) Throwable
b) Object
c) RuntimeException
d) IOException

---

3. Which of these is a **checked exception**? a) NullPointerException
b) ArrayIndexOutOfBoundsException
c) ArithmeticException
d) IOException

---

4. What happens if a checked exception is not handled or declared in a method?
a) Program crashes at runtime
b) Compiler shows an error
c) Method automatically handles it
d) JVM ignores it

---

5. Which of the following is an **unchecked exception**? a) SQLException
b) ClassNotFoundException
c) FileNotFoundException
d) NumberFormatException

---

6. Errors in Java, like `OutOfMemoryError`, are:
a) Meant to be caught using try-catch
b) Subclasses of Exception
c) Non-recoverable
d) Checked exceptions

---

7. Which keyword is used to handle exceptions in Java?
a) final
b) catch
c) throw
d) try

---

8. Which block must always follow a try block?
a) catch
b) throw
c) finally
d) None

---

9. How many `catch` blocks can follow a single `try` block?
a) Only one
b) Two
c) As many as needed
d) None

---

10. What will happen if an exception is thrown but not caught?
a) Program continues normally
b) Compiler fixes it
c) Program terminates abnormally
d) JVM ignores it

---

11. What kind of exception is `NullPointerException`? a) Checked
b) Unchecked
c) User-defined
d) Compile-time

---

12. Which one of the following is NOT a subclass of `RuntimeException`? a) ArithmeticException
b) FileNotFoundException
c) ArrayIndexOutOfBoundsException
d) NumberFormatException

---

13. In Java, errors and exceptions are part of which hierarchy?
a) Object
b) Throwable
c) Exception
d) RuntimeException

---

14. Which of the following is true about `try` and `catch` blocks?
a) Only `catch` is required
b) Only `try` is required
c) `try` must be followed by either `catch` or `finally`
d) Both `try` and `catch` are optional

---

15. You write a method that reads a file. Which kind of exception must you handle or declare?
a) FileNotFoundException
b) NullPointerException
c) ArithmeticException
d) ArrayIndexOutOfBoundsException

---

16. When multiple catch blocks are used, how are exceptions matched?
a) Bottom-up
b) Randomly
c) Top-down, from specific to general
d) Order does not matter

---

17. What happens if the general exception class is written before a specific one in multiple catch blocks?
a) Compiler error
b) Runtime error
c) JVM skips the specific one
d) No issue

---

18. Can a `try` block be used without a `catch` block?
a) No
b) Yes, only with a `finally` block

c) Yes, always
d) Only inside a loop

---

19. Which of the following represents a scenario where you should NOT use try-catch?
a) Null input
b) Parsing a file
c) Dividing two integers
d) Fixing an `OutOfMemoryError`

---

20. You have the following code:

```
try {
   int a = 5 / 0;
} catch (ArithmeticException e) {
   System.out.println("Arithmetic error!");
} catch (Exception e) {
   System.out.println("General error!");
}
```

What will be the output?
a) `Arithmetic error!` b) General error! c) Compilation error
d) Runtime exception not caught

Code Based Questions

1.

```
try {
    String str = null;
    System.out.println(str.length());
} catch (ArithmeticException e) {
    System.out.println("Arithmetic error!");
} catch (NullPointerException e) {
    System.out.println("Null pointer error!");
}
```

a) Arithmetic error! `b) Null pointer error!` c) Compilation error
d) No output

2.

```
try {
    int[] arr = new int[3];
    System.out.println(arr[5]);
} catch (ArrayIndexOutOfBoundsException e) {
    System.out.println("Array error!");
} catch (Exception e) {
    System.out.println("General error!");
}
```

a) Array error! b) General error! c) Compilation error
d) No output

3.

```
try {
    int a = Integer.parseInt("abc");
} catch (NumberFormatException e) {
    System.out.println("Number format error!");
} catch (Exception e) {
    System.out.println("General error!");
}
```

a) Number format error! b) General error! c) Compilation error
d) No output

4.

```
try {
    int result = 10 / 2;
    System.out.println("Result: " + result);
} catch (ArithmeticException e) {
    System.out.println("Divide by zero!");
}
```

a) Result: 5
b) Divide by zero! c) Compilation error
d) No output

5.

```
try {
    throw new Exception("Custom exception");
} catch (RuntimeException e) {
    System.out.println("Runtime exception caught");
} catch (Exception e) {
    System.out.println("General exception caught");
}
```

a) Runtime exception caught
b) General exception caught
c) Compilation error
d) No output

6.

```
try {
    int[] nums = null;
    nums[0] = 10;
} catch (ArrayIndexOutOfBoundsException e) {
    System.out.println("Index problem");
} catch (NullPointerException e) {
```

```
    System.out.println("Null reference issue");
}
```

a) Index problem
b) Null reference issue
c) Compilation error
d) No output

7.

```
try {
    String s = "123";
    int x = Integer.parseInt(s);
    System.out.println(x / 0);
} catch (NumberFormatException e) {
    System.out.println("Invalid number");
} catch (ArithmeticException e) {
    System.out.println("Division by zero");
}
```

a) Invalid number
b) Division by zero
c) Compilation error
d) No output

8.

```
try {
    int x = 5 / 0;
} catch (Exception e) {
    System.out.println("Exception caught");
} catch (ArithmeticException e) {
    System.out.println("Arithmetic caught");
}
```

a) Exception caught
b) Arithmetic caught
c) Compilation error
d) No output

9.

```
try {
    System.out.println("Start");
} catch (Exception e) {
    System.out.println("Error occurred");
}
```

a) Start
b) Error occurred
c) Compilation error
d) No output

10.

```
try {
    String s = null;
    System.out.println("Length: " + s.length());
} catch (Exception e) {
    System.out.println("Handled in general catch");
}
```

a) Length: 0
b) Compilation error
c) Handled in general catch
d) NullPointerException
