1. **What is an Exception in Java?**

   A) A syntax error in the code. B) An event that occurs at compile time. C) An unwanted event that disrupts the program's normal flow at runtime. D) A logical error in the program.

   Correct Answer: C

2. **Which of the following is NOT a common reason for an Exception to occur?**

   A) Invalid user input. B) Loss of network connection. C) Code comments. D) Arithmetic errors.

   Correct Answer: C

3. **Which class is at the root of the Java Exception Hierarchy?**

   A) Throwable B) Exception C) Error D) RuntimeException

   Correct Answer: A

4. **What do Errors in Java represent?**

   A) Conditions that can be easily recovered from. B) Irrecoverable conditions like running out of memory. C) Exceptions that the programmer should handle. D) Compile-time problems.

   Correct Answer: B

5. **Which of the following is an example of an Error in Java?**

   A) IOException B) NullPointerException C) StackOverflowError D) ArithmeticException

   Correct Answer: C

6. **What is the difference between Checked and Unchecked Exceptions?**

   A) Checked Exceptions are checked at runtime, while Unchecked Exceptions are checked at compile time. B) Checked Exceptions are handled by the JVM, while Unchecked Exceptions are handled by the programmer. C) Checked Exceptions are checked at compile time, while Unchecked Exceptions are not. D) There is no difference between Checked and Unchecked Exceptions.

   Correct Answer: C

7. **Which of the following is a Checked Exception?**

A) NullPointerException B) IOException C) ArithmeticException D) ArrayIndexOutOfBoundsException

Correct Answer: B

8. **Which of the following is an Unchecked Exception?**

   A) ClassNotFoundException B) SQLException C) NullPointerException D) FileNotFoundException

   Correct Answer: C

9. **What is a User-Defined Exception?**

   A) A built-in exception provided by Java. B) An exception defined by the user to handle specific application requirements. C) An exception that extends the Error class. D) An exception that cannot be handled.

   Correct Answer: B

10. **What is the purpose of Exception Handling in Java?**

    A) To cause the program to crash when an error occurs. B) To prevent runtime errors. C) To manage runtime errors and ensure the application's regular flow. D) To fix compile-time errors.

    Correct Answer: C

11. **Which block is used to handle exceptions in Java?**

    A) if-else block B) for loop C) try-catch block D) while loop

    Correct Answer: C

12. **What is the purpose of the `finally` block?**

    A) To handle multiple exceptions. B) To execute code only when an exception occurs. C) To execute important code regardless of whether an exception occurs or not. D) To define custom exceptions.

    Correct Answer: C

13. **How can you handle multiple types of exceptions in Java?**

    A) Using a single catch block. B) Using nested try blocks. C) Using multiple catch blocks. D) Using the `throws` keyword.

    Correct Answer: C

14. **What is the purpose of the `throw` keyword?**

A) To declare that a method might throw an exception. B) To handle exceptions. C) To manually throw an exception. D) To define a custom exception.

Correct Answer: C

15. **What is the purpose of the `throws` keyword?**

    A) To manually throw an exception. B) To handle exceptions. C) To define a custom exception. D) To declare that a method might throw one or more exceptions.

    Correct Answer: D

16. **Where is the `throw` keyword used?**

    A) In the method signature. B) Inside a method or a block of code. C) In the class declaration. D) In the `catch` block.

    Correct Answer: B

17. **Where is the `throws` keyword used?**

    A) Inside a method or a block of code. B) In the class declaration. C) In the `catch` block. D) In the method signature.

    Correct Answer: D

18. **What is the primary use case for User-Defined Custom Exceptions?**

    A) To replace built-in exceptions. B) To handle standard Java errors. C) To represent application-specific errors. D) To improve code performance.

    Correct Answer: C

19. **To create a Checked Custom Exception, which class should your custom exception extend?**

    A) RuntimeException B) Error C) Throwable D) Exception

    Correct Answer: D

20. **When an Exception occurs, what does the JVM do first?**

    A) Prints the stack trace. B) Searches the call stack for an exception handler. C) Terminates the program. D) Ignores the exception.

    Correct Answer: B

JDBC (Java Database Connectivity)

21. **What is JDBC?**

    A) A programming language. B) An API in Java that enables applications to interact with databases. C) A database management system. D) A web framework.

    Correct Answer: B

22. **Which component allows Java programs to execute SQL queries?**

    A) JVM B) JDBM C) JDBC API D) JDK

    Correct Answer: C

23. **What is the role of the JDBC Driver Manager?**

    A) To execute SQL queries. B) To manage JDBC drivers and establish database connections. C) To store data. D) To display data to the user.

    Correct Answer: B

24. **Which JDBC interface represents a session with a specific database?**

    A) Statement B) ResultSet C) Connection D) DriverManager

    Correct Answer: C

25. **Which JDBC interface is used to execute static SQL queries?**

    A) PreparedStatement B) Statement C) CallableStatement D) ResultSet

    Correct Answer: B

26. **Which JDBC interface is used for precompiled SQL statements with parameters?**

    A) Statement B) ResultSet C) PreparedStatement D) CallableStatement

    Correct Answer: C

27. **Which JDBC class is used to manage JDBC drivers and establish database connections?**

    A) Connection B) Statement C) ResultSet D) DriverManager

    Correct Answer: D

28. **What is the first step to connect to a MySQL database using JDBC?**

A) Establish a Connection. B) Load the JDBC Driver. C) Import JDBC Packages. D) Create a Statement.

Correct Answer: C

29. **Which method is used to establish a connection to a database?**

A) createStatement() B) executeQuery() C) getConnection() D) prepareStatement()

Correct Answer: C

30. **Which method is used to execute a SELECT query?**

A) executeUpdate() B) createStatement() C) executeQuery() D) prepareStatement()

Correct Answer: C

31. **Which method is used to execute INSERT, UPDATE, or DELETE statements?**

A) executeQuery() B) executeUpdate() C) createStatement() D) prepareStatement()

Correct Answer: B

32. **Why should you use try-catch blocks in JDBC operations?**

A) To improve performance. B) To handle SQL-related exceptions. C) To establish database connections. D) To execute SQL queries.

Correct Answer: B

33. **What is the main advantage of PreparedStatement over Statement?**

A) Faster for single query execution. B) Simpler syntax. C) Prevents SQL injection. D) Can execute only SELECT queries.

Correct Answer: C

34. **Which JDBC Connection URL is used for MySQL?**

A) jdbc:oracle:thin:@localhost:1521:orcl B) jdbc:postgresql://localhost:5432/dbname C) jdbc:mysql://localhost:3306/dbname D) jdbc:sqlserver://localhost:1433;databaseName=dbname

Correct Answer: C

35. **Which method of the `ResultSet` interface is used to move to the next row?**

    A) getString() B) next() C) executeQuery() D) executeUpdate()

    Correct Answer: B