## Multiple Choice Quiz: IO and Java

- 1. What is an I/O stream in Java?
  - A) A loop structure
  - B) A sequence of data for input/output
  - C) A data type
  - D) A class method
- 2. Which package provides Java I/O classes?
  - A) java.util
  - B) java.io
  - C) java.net
  - D) java.lang
- 3. What type of data does InputStream handle?
  - A) Characters
  - B) Bytes
  - C) Objects
  - D) Strings
- 4. Which class is used to read bytes from a file?
  - A) FileReader
  - B) FileInputStream
  - C) BufferedWriter
  - D) OutputStream
- 5. What method reads a single byte from an InputStream?
  - A) write()
  - B) read()
  - C) close()
  - D) flush()
- 6. Which class writes bytes to a file?
  - A) FileWriter
  - B) FileOutputStream
  - C) BufferedReader
  - D) InputStream
- 7. Why should you close a stream in Java?
  - A) To increase performance
  - B) To free system resources
  - C) To read data
  - D) To compile the program
- 8. What exception is commonly handled in I/O operations?
  - A) NullPointerException

- B) IOException
- C) ArrayIndexOutOfBoundsException
- D) ClassNotFoundException
- 9. Which feature auto-closes streams in Java 7+?
  - A) try-catch
  - B) try-with-resources
  - C) finally
  - D) close()
- 10. What is the benefit of using buffers in file operations?
  - A) Increases file size
  - B) Improves performance
  - C) Changes encoding
  - D) Prevents errors
- 11. Which class is used to read character data from a file?
  - A) FileInputStream
  - B) FileReader
  - C) OutputStream
  - D) BufferedWriter
- 12. Which class provides efficient text reading with buffering?
  - A) FileWriter
  - B) BufferedReader
  - C) InputStreamReader
  - D) FileOutputStream
- 13. What does BufferedReader.readLine() do?
  - A) Reads a single character
  - B) Reads a line of text
  - C) Writes a line
  - D) Closes the stream
- 14. Which class writes character data to a file?
  - A) FileOutputStream
  - B) FileWriter
  - C) BufferedReader
  - D) InputStream
- 15. What is true about character streams?
  - A) They handle binary data
  - B) They process Unicode text
  - C) They are slower than byte streams
  - D) They cannot use buffers
- 16. Which class bridges byte streams to character streams?
  - A) FileReader

- B) InputStreamReader
- C) FileOutputStream
- D) BufferedWriter
- 17. What encoding is commonly used with character streams?
  - A) Binary
  - B) UTF-8
  - C) ASCII-128
  - D) Bytecode
- 18. What does the write() method of FileOutputStream do?
  - A) Reads bytes
  - B) Writes bytes
  - C) Closes the stream
  - D) Buffers data
- 19. What is the output of this code if "test.txt" contains "Hello"? FileReader fr = new FileReader("test.txt"); int ch = fr.read(); System.out.print((char) ch);
  - A) Hello
  - B) H
  - C) Error
  - D) Nothing
- 20. Which class is used to write text efficiently with buffering?
  - A) FileReader
  - B) FileOutputStream
  - C) BufferedWriter
  - D) InputStreamReader
- 21. What does BufferedWriter.newLine() do?
  - A) Reads a line
  - B) Writes a newline character
  - C) Closes the stream
  - D) Clears the buffer
- 22. Why are character streams preferred for text files?
  - A) They are faster than byte streams
  - B) They handle text encoding automatically
  - C) They support binary data
  - D) They require no buffering