# JAVA TEST BANK QUESTIONS – CHAPTER 1 – GETTING STARTED

MULTIPLE CHOICE

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| **Question 1** | Java is an object-oriented programming language. An object-oriented language |
| **Answer** | Uses structured programming.  Views a program as consisting of objects which communicate through interactions.  Functionally breaks down problems into smaller, more manageable problems.  All of the above |

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| **Question 2** | In Java, the equal sign is used as the \_\_\_\_\_\_\_\_\_\_\_ operator. |
| **Answer** | increment  decrement  assignment  negation |

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| **Question 3** | In Java, source code is compiled into object code called \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **Answer** | Bit code  Class code  Method code  Byte code |

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| **Question 4** | The hardest kind of error to detect in a computer program is a: |
| **Answer** | Syntax error  Run-time error  Logic error  All of the above |

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| **Question 5** | Identify the invalid Java identifier. |
| **Answer** | 1Week  Week1  amountDue  amount\_due |

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| **Question 6** | What is the value of the variable amountDue?  **double price = 2.50;**  **double quantity = 5;**  **double amountDue = 0;**  **amountDue = price \* quantity;** |
| **Answer** | 12  12.25  12.5  13 |

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| **Question 7** | What is the value of 7.52e-5? |
| **Answer** | 752000.0  0.0000752  0.000752  0.00752 |

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| **Question 8** | What is the Java expression for 4a2 + 2b \* c? |
| **Answer** | (4 \* a) + (2 \* b) \* c  (4 \* a \* a) + ((2 \* b) \* c)  ((4 \* a \* a) + (2 \* b)) \* c  (4 + a \* a) + ((2 + b) \* c) |

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| **Question 9** | What is the Java expression for 27xy? |
| **Answer** | 27 + (x \* y)  27 \* (x + y)  27 \* x \* y  27x \* y |

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| **Question 10** | The value of the expression (int) 27.6 evaluates to: |
| **Answer** | 28  27  26  None of the above |

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| **Question 11** | Which operator is used to concatenate two strings? |
| **Answer** | +  -  \*  / |

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| **Question 12** | Which operator returns the remainder of integer division? |
| **Answer** | %  /  \*  none of the above |

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| **Question 13** | What is the value of the variable c in the statements that follow?  **String phrase = "Make hay while the sun is shining.";**  **char c = phrase.charAt(10);** |
| **Answer** | w  h  i  None of the above |

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| **Question 14** | The escape sequence the represents the new-line character is: |
| **Answer** | \r  \t  \n  \\ |

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| **Question 15** | The syntax that declares a Java named constant named SALES\_TAX is: |
| **Answer** | double SALES\_TAX = 7.50;  public double SALES\_TAX = 7.50;  public static double SALES\_TAX = 7.50;  public static final double SALES\_TAX = 7.50; |

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| **Question 16** | In Java, a block comment is delimited by: |
| **Answer** | \*/ /\*  /\* /\*  /\* \*/  \*/ \*/ |

TRUE/FALSE

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| **Question 1** | Java began as a language for home appliances. |
| **Answer** | True  False |

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| **Question 2** | Applets were designed to run as stand-alone applications. |
| **Answer** | True  False |

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| **Question 3** | The Java programming language allows you to concatenate two strings using the plus sign. |
| **Answer** | True  False |

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| **Question 4** | Java is an interpreted language. |
| **Answer** | True  False |

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| **Question 5** | Java does not require that a variable be declared before it is used within a program. |
| **Answer** | True  False |

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| **Question 6** | A variable of type boolean can be explicitly converted to that of type int. |
| **Answer** | True  False |

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| **Question 7** | The modulus operator, %, returns the remainder of integer division. |
| **Answer** | True  False |

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| **Question 8** | The result of integer division is truncated in Java. |
| **Answer** | True  False |

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| **Question 9** | Objects of type String are strings of characters that are written within single quotes. |
| **Answer** | True  False |

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| **Question 10** | In Java, Strings are immutable objects. Immutable objects can be changed. |
| **Answer** | True  False |

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| **Question 11** | An advantage of using the Unicode character set is that it easily handles languages other than English. |
| **Answer** | True  False |

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| **Question 12** | Java uses the ASCII character set. |
| **Answer** | True  False |

SHORT ANSWER

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| **Question 1** | Define high-level languages, machine language and low-level language. Explain how the languages correspond to one another. |
| **Answer** |  |

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| **Question 2** | There are two kinds of Java programs, applications and applets. Define and discuss each. |
| **Answer** |  |

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| **Question 3** | What is byte-code? What is its importance? |
| **Answer** |  |

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| **Question 4** | What is the syntax and semantics of a programming language? |
| **Answer** |  |

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| **Question 5** | What steps must the programmer take to create an executable Java program? |
| **Answer** |  |

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| **Question 6** | List the primitive data types Java supports. Indicate the kind of values each type can store. |
| **Answer** |  |

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| **Question 7** | How is the % (modulus) operator used? What is the common use of the modulus operator? |
| **Answer** |  |

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| **Question 8** | What are the values of the variables a, b, c, and d after the execution of the following expressions?  **int a = 3; int b = 12; int c = 6; int d = 1; d = d \* a; c = c + 2 \* a; d = d - b / c; c = c \* b % c; b = b / 2;** |
| **Answer** |  |

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| **Question 9** | Explain the difference between an implicit type cast and an explicit type cast. |
| **Answer** |  |

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| **Question 10** | What is the output produced by the following lines of code?  **int value1 = 3; int value2 = 4; int result = 0; result = value1++ \* value2--; System.out.println("Post increment/decrement: " + result); result = ++value1 \* --value2; System.out.println("Pre increment/decrement: " + result);** |
| **Answer** |  |

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| **Question 11** | Define the terms class, object, method and method call. |
| **Answer** |  |

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| **Question 12** | What does the String method trim() do? Give an example of its use. |
| **Answer** |  |

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| **Question 13** | What is the output of the following Java statements?  **//String method examples String str = "Java Programming!"; System.out.println(str.equals("Java Programming!")); System.out.println(str.toLowerCase()); System.out.println(str.toUpperCase()); System.out.println(str.substring(5,8)); System.out.println(str.lastIndexOf("m"));** |
| **Answer** |  |

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| **Question 14** | Write a Java statement to access the 7th character in the String variable myString and place it in the char variable c. |
| **Answer** |  |

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| **Question 15** | Write a Java statement to determine the length of a string variable called input. Store the result in an integer variable called strLength. |
| **Answer** |  |

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| **Question 16** | Why is using named constants a good programming practice? |
| **Answer** |  |

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| **Question 17** | How are line comments and block comments used? |
| **Answer** |  |