1. The data 72, 'A', "Hello", 2.17 are examples of ______.

   Hint: In the answer write a noun in singular (for instance, book) or plural (for instance, books), all in lowercase.

2. A group of statements, such as the contents of a class or a method, are enclosed in ______.
   a) parentheses ()
   b) brackets < >
   c) squared brackets [ ]
   d) braces { }

3. The method in Scanner class used to read a float number is ______.

   Hint: Write the method name with or without parentheses, for example eatApple() or eatApple are correct answers.

4. The value of "Harry Potter".charAt(5) is

5. The value of "Harry Potter".length() is

6. What is the output of the following program segment?
   System.out.println("Harry Potter ".indexOf('e'));

7. Which method starts a Java program?

8. The value of 3.14E3 is

9. What will be the output of the following program?
   public class Test2 {
       public static void main(String[] args) {
           String s = "Monday October 2008";
10. What will be the output of the following program?
   ```java
   public class Test {
       public static void main(String[] args) {
           String s = "Monday October 2008";
           System.out.println(s.substring(7, 11));
       }
   }
   ```

11. How many operands does the conditional operator take?
   Hint: Write a number in your answer.

12. What is the output of the following program segment?
   ```java
   int n = 7;
   System.out.println(n < 5 ? "Good" : "Bad");
   ```

13. The value of logical expression !(19/5 < 2) is

14. What logical expression should be used if you want to check whether a given number n is outside the range [a, b] or not? Suppose that a <= b.
   a) n < a || b < n
   b) n < a && b < n
   c) n <= a && b <= n
d) n <= a || b <= n

15. What is the output of the following program segment?
   double d = 1.234567;
   DecimalFormat fm = new DecimalFormat("#0.000");
   System.out.println(fm.format(d));

16. What kind of if statement is used in the program segment below?
   if (age >= 20)
       System.out.println("The grade is A");
   else
       if (score >=10)
           System.out.println("The grade is B");
   a) if statement
   b) if-else statement
   c) if-else-if statement
   d) nested if statement

17. In the expression n++, the ++ operator is in ________ mode.
   Write your answer all in lower case.

18. What will be the result of attempting to compile and run the following class?
   public class Test1 {
       public static void main(String args[]) {
           int i = 2;
           while(i<20) {
               i = i * 2;
               System.out.print(i + " ");
           }
19. The _____ loop always executes at least once.

20. Suppose r is an Random object created by:
    Random r = new Random();
    Which of the following statements display correctly a random number from 5 to 10 (inclusive)?
    a) System.out.println(4 + r.nextInt(6));
    b) System.out.println(5 + r.nextInt(5));
    c) System.out.println(5 + r.nextInt(6));
    d) System.out.println(r.nextInt(11));

21. What is the output of the following program segment?
    int i = 1;
    while (i < 100)
    i *= 5;
    System.out.println(i);

22. What would be the correct code for this loop, which is supposed to print the sequence
    1 5 9 13 ?
    int k = 1;
    while (k <= 14) {
        System.out.print(k + " ");
        // Insert your code here
    }

23. Given the following code:
    int n = 5;
    while (n > 1){

if (n%2==0)
    n = n/2;
else n = 3*n + 1;
}
What will be the value of n when the loop terminates?

24. Given the following code:
   int count = 0;
   while(count < X ) {
       System.out.println("Line "+ ++count);
   }

What value for X above will print EXACTLY 15 lines to standard output?

25. Given the following code:
   int count = 0;
   do {
       System.out.println("Line "+ count++);
    } while(count < X );

What value for X above will print EXACTLY 15 lines to standard output?
Can you specify the value of X so that there’s no output on the screen?

26. Given the following code:
   int i = 1, s = 0;
   while (i < 50){
       i = 3*i + 2;
       s += i;
    }

What will be the value of s when the loop terminates?