CORE JAVA EXERCISE BOOK

Week 3

shoiab

Haaris Infotech

Day 1

1. Write a program to print "Hello World" on Console.
2. Write a program to print default values of all primitive types.
3. Write a program to declare all primitive data types with all possible types of initialization and also check implicit and explicit type casting by assigning them to each other.
4. Write a program to find weather a number is Prime or not
5. Write a program to calculate average of the n number using a separate function other than main.
6. Write a program to resize an array. (Since you cannot resize an array, use System.arrayCopy method and demonstrate the same).
7. Write a program to sort an array element in ascending or descending order
8. Write a program to find the location of element in the Array.
9. Write a program to reverse elements in the Array
10. Write a program to display number matrix as follows using Two Dimensional Rectangular Array.

    1 2 3 4

    5 6 7 8

    9 10 11 12

    13 14 15 16

11. Write a program to display number matrix as follows using Two Dimensional Rectangular Array.

    1

    2 3

4 5 6

7 8 9 10

12. Write a Program to access command line arguments.

13. Write a Program to calculate result of students.(take no of student as rows and marks as columns of two Dimensional Array)

14.

a) Write a program with comment documentation. Execute javadoc on file and view through web browser

b) Try to execute java program by giving different name to class and file.

c) Try to execute java program by defining main

i) Without public modifier

ii) Without static modifier

iii) Without function parameter

15. Write a program :

a) To generate a Prime number list between 1 to 100

b) To check given number is an Armstrong number or perfect number or palindrome or none of these

16. Write a program to search a given element is present or not? If present, display the location and how many times it occurs

17. Write a program to test:

a) to modify const member

b) to access static member in a non -static method

c) create a class with one argument constructor and try to instantiate object without parameter

18. write a program to convert number into words

Example: 125 as one two five (or one hundred twenty five)

19. Write a program to reverse the elements of each row in a two dimensional array

20. Write a program to find the largest element in each row of a two dimensional array

21. Write a program using Switch—case to print number of days in a month. For the month of February check for leap year and calculate.

22. Create a class with public, private, protected, and default data members and method members. Create an object of this class and see what kind of compiler messages you get when you try to access all the class members from out side this class

23. Create a class with protected data. Create a second class in the same file with a method that manipulates the protected data in the first class

24. Write a simple Java class for quadratic functions of the form $f(x) = ax^2 + bx + c$.
It contain the following elements:

- fields for values a, b, and c,

- a constructor with no parameters (setting a, b, and c to 1),
- a constructor with 3 parameters, to specify a, b, and c,
- three extractors that return the values of a, b, and c, respectively,
- a modifier that requires three parameters, one each to give new values to a, b, and c,
- a compute method that takes a parameter x and that returns the value f(x) for the given values of a, b, and c, and a main method that exercises each of the methods.

25. protected class base {

String Method() {

return "Wow";

}

}

class dervied {

public void useD() {

base z = new base();

System.out.println("base says, " + z.Method());

}

}

Compile this and see what happens

26. What is the problem with the following code? It compiles and runs, but the output is

□ numbers are the same. However, the numbers are not the same.

// sample.java

```
public class sample {
  public static void main(String[]args)
  {
  int i = -243;
  int j = 243;
  if(i == j);
  System.out.println("numbers are thesame");
  }
}
```

27. Create a program that calculates how much a $14,000 investment would be worth if it increased in value by 40% during the first year, lost $1,500 in value the second year, and increased 12% in the third year.