**Simple Problem Statements**

1. Hello World Program
2. Addition of two numbers
3. Addition, subtraction, Multiplication and Division
4. Average of three numbers
5. Taking input from user (keyboard) using Scanner class
6. Area of a circle.
7. To find years, months, weeks and remaining days from the given number of days.
8. To check whether given number is odd or even. (using conditional operator)
9. To calculate the electricity/telephone bill. (ANSI C Problem)
10. To find the largest number amongst 3 given numbers.
11. Menu based program to find the area of a circle, triangle, square and rectangle.
12. To find out factorial of a given number.
13. To check whether given number is prime or not.
14. To count and perform sum of numbers which are divisible by 7 between 1 and 100.
15. To reverse a given number of n digits.
16. To display the individual digits of an entered number of n digits.
17. To find out square root of n numbers using the concept of break and continue statements

**Java intermediate Practice Programs:**

1. Write an application that asks the user to enter two integers, print their sum, product, difference and quotient (division).
2. Write an application that asks the user to enter two integers, obtains them from the user and displays the larger number followed by the words "is larger". If the numbers

are equal, print the message "These numbers are equal".

1. Write an application that inputs three integers from the user and displays the sum, average, product, smallest and largest of the numbers. [*Note:* The calculation of the average in this exercise should result in an integer representation of the average. So, if the sum of the values is 7, the average should be 2, not 2.3333….]
2. Write an application that reads five integers and determines and prints the largest and smallest integers in the group. [Note: Don’t use Array concept]
3. Write an application that reads two integers, determines whether the first is a multiple of the second and prints the result.
4. Write an application that inputs from the user the radius of a circle as an integer and prints the circle’s diameter, circumference and area using the floating-point value

3.14159 for π

*diameter* = 2*r*

*circumference* = 2π*r*

*area* = π*r*2

1. Write an application that inputs one number consisting of five digits from the user, separates the number into its individual digits and prints the digits separated from one another by three spaces each. For example, if the user types in the number 42339, the program should print:

4 2 3 3 9

1. Write an application that calculates the squares and cubes of the numbers from 0 to 10 and prints the resulting values in table format, as shown below. [Note: This program does not require any input from the user.]

number square cube

0 0 0

1 1 1

2 4 8

3 9 27

**. . .**

**. . .**

**. . .**

10 100 1000

1. Write a program that inputs five numbers and determines and prints the number of negative numbers input, the number of positive numbers input and the number of zeros input.
2. Create a BMI(Body Mask Index) calculator that reads user’s weight in kilograms and height in meters, then calculates and displays the user’s body mass index.

BMI = Weight in Kg / (height in meters X height in meters )

Also, display the following information from the Department of Health and Human Services/National Institutes of Health so the user can evaluate his/her BMI:

BMI VALUES

Underweight: less than 18.5

Normal: between 18.5 and 24.9

Overweight: between 25 and 29.9

Obese: 30 or greater

1. Enter the Employee Code, Name, Grade and Basic Salary of an employee and as per the given allowances calculate the gross salary of this employee. Calculate the net salary by deducting the income tax from the gross salary. Display all the details of the employee on the screen.
2. Enter the Customer Id, Name and number of electrical units consumed in a particular month and display the total bill amount of this month along with personal details.
3. To check whether entered number is a perfect square or not.
4. To check whether entered number is power of 2 or not.
5. Write Java program to check if a number is palindrome in Java?  
     
   Reference : <http://www.java67.com/2013/01/10-programming-questions-and-exercises.html>

**Series Oriented Problem Statements**

1. S = 1+2+3+4+....+n
2. S = 1/1 + 1/2 + 1/3 + 1/4 + . . . . . +1/n
3. S = 1 + x + x2 + x3 + ...... +xn
4. S = a/x1 + a/x2 + a/x3 + a/x4 + . . . . . . + a/xn
5. S = 1! +2! + 3! + . . . . . .+ n !
6. S = 1 + 1/2 ! + 1/3! + 1/4 ! + . . . . . .+ 1/n!
7. S = x/1 + x2/4 + x3/9 + . . . . . . +xn/n2
8. S = 1/a2 + 4/a5 + 7/ a8 + 10/ a11 + . . . . . . . upto n terms
9. S = x+ x2/2! + x3/3! + . . . . . . +xn/n!