CSN-103: Fundamentals of Object Oriented Programming

Assignment 01

General Instructions:

a) No need to ask input from the user at the runtime. Variables/Values required for the program can be declared and initialized in the source code.
b) To submit this assignment: Create a single .zip file containing all the source code (.java) files. Rename the zip as 01-xxxxxxx where xxxxxxx is your enrollment number.
c) Send the zip file to TA in-charge of assignment (will be informed later) via email.
d) Follow indentation while writing programs.
e) All submissions will be checked for Plagiarism. DO NOT ATTEMPT TO CHEAT. YOU WILL BE SEVERELY PENALIZED.

Programming Problems

1) Write a Java program to add an int and a double variable having values 55 and 7.896, respectively. Use a third variable of the correct type to store the sum and display it on the screen.
2) Write a Java program to print the area of a rectangle of size 34567 cm X 76543 cm.
3) Write a Java program to print the ASCII value of all the characters from 'A' to 'Z' and 'a' to 'z'.
4) Write a Java program that assigns a value 3.5678 to a double variable. By explicit typecasting, store this double value to an int variable and display it on the screen.
5) Write a Java program to calculate the number of characters lies between 'F' and 'Q' in the English alphabet.
6) Write a Java program that prints the table of 7 using += operator.
7) Write a Java program that prints the value of 7^5 using *= operator.
8) Write a Java to print the following patterns on the screen (using a loop statement)
   a.
```
*
**
***
****
*****
******
```
   b.
```
     *
    * *
   * * *
  * * * *
 * * * * *
```
9) Write a Java program to declare and initialize a one-dimensional array of size 5 with random numbers. Calculate the sum of array elements and display it on the screen.
10) Write a Java program to declare and initialize two 2-D arrays A and B of size 3X4 and 4X3 with random numbers. Calculate AXB (matrix product) and display the resultant matrix on the screen.