CSD101: Lab Assignment -1

Total Marks: 10x2=20

1. Evaluate the following expression with 7 and 22 as operands by executing the corresponding C program.
   i. 22/7 3
   ii. 7/22 0
   iii. 22 % 7 1
   iv. 7 % 22 0
2. Assume that you have the following variable declarations:
   int color, lime, straw, red, orange;
   float white, green, blue, purple, crayon;

   Evaluate each of the following values:
   color = 2, crayon = -1.3, straw = 1, red = 3, purple = 0.32

   i. white = color * 2.5 / purple; 10.156250
   ii. green = color / purple; 6.250000
   iii. orange = color / red; 0
   iv. blue = (color + straw) / (crayon + 0.3); -3.000000
   v. lime = red / color + red % color; 2
   vi. purple = straw / red * color; 0.666666

3. Draw following simple structure on your screen using the printf function.
   i. Circle

```
      *

   *     *

      *  *
```

   ii. Triangle

```
    /\
   /  \
  ------
```

iii. Rectangle

iv. Alphabets of your initials such as for the name ‘Sweta Mishra’, draw the shape for initials SM as follows (Use any symbol of your choice: *, -, +, /, $ etc)

```
    *       *         *
*           *   *   *   *
     *      *     *     *
*           *         *
```

4. Write a program that reads in three integers and then determines and prints the largest and the smallest in the group.
5. Write a program that reads in two integers and determines and prints whether the first is a multiple of the second. [use % operator.]
6. Write a program that prints the integer equivalent of some uppercase letters, lowercase letters and some special symbols.
   Ex: A B C a b c * % / and the blank character.
   Hint: To print the integer equivalent of uppercase A we need to execute the following statement.
   printf(“%d”, ‘A’);
7. Consider a currency system in which there are notes of denominations Rs. 1, Rs. 2, Rs. 5, Rs. 10, Rs. 50, Rs. 100.If a sum of Rs. N is entered through the keyboard, write a program to compute the smallest number of notes that will combine to give Rs. N.
8. Any year is input through the keyboard. Write a program to determine whether the year is leap year or not. [use if-else and % operator]
9. Given the length and breadth of a rectangle, write a program to find whether the area of the rectangle is greater than its perimeter.
10. A five digit number is entered through the keyboard. Write a program to obtain the reversed number and to determine whether the original and reversed numbers are equal or not.