**Switching Theory - CS225**
**Assignment 1**

Submit by : 27-Jan-2020

**Note:**
**1. Submit the answer(Handwritten) to question No. 1 is to TA (Mr. Srikanata Pradhan, Network Security Lab (R 511), CSE Dept.).**
**2. Send your Code with input, output in a file with "CS225-Ass1-2-xxxx, where, xxxx is your Roll.No. to som_assign@iitp.ac.in. Mention the sub as CS225**

1. Answer the following questions
   (a) Determine the decimal equivalent of two's complement numbers given below:
      i. 1010101
      ii. 0111011
   (b) Convert $(34.34)_{10}$ to binary, base 3, octal, and hexadecimal. Any fractions that do not terminate should be truncated to 4 digits in the fractional part.
   (c) Multiply two 8-bit numbers : 11111010 and 00001010
   (d) The 2's complement representation of $(-539)_{10}$ in hexadecimal is?
   (e) Find the 16's complement of C3DF.
   (f) Given that $(16)_{10} = (100)_b$ , determine the value of b.
   (g) Given that $(292)_{10} = (1204)_b$, determine the value of b.

2. Write a program to convert decimal to BCD.
   (a) Convert decimal 6514 to BCD