Test 1 (set A)

Subject : Digital Logic[CSC 1111]

Full Marks : 20

Pass Marks : 10

Attempt all questions :

1. Subtract the following using 9's complement.

   $(1000)_{10} - (1001)_{10}$

2. Convert the given binary number into Gray code and Excess-3 code.
   $(1111101)_2$
3. Convert the given decimal number in binary.
   -5/8
4. if A + B = 1 and A . B = 0 prove the given Boolean algebra.
   (A + C).(A' + B).(B+C) = B.C
5. What are the two ways of finding the complement of a function. Explain with examples.
6. What are universal gates and why they are called universal gate? Show that NAND gate is universal gate.
7. Express the given function in Sum of Minterms and obtain the simplified Boolean expression for the given function using K-map.
   F(A,B,C,D) = A'B'C' + A'B'CD + BC'D' + BC'D + BCD

Note : Preference will be given to those who use their own understanding with good logic.

Best of luck guys.