CSE 303: Data Communication

CT 2

Marks – 20 **Time – 25 Minutes**

Each Question carries 10 marks

1. A signal is carrying data in which two data element is encoded as one signal element. If the Signal rate (baud rate) is **10*X** kbaud, what is the average value of the bit rate. Case factor, c = ½.

   Here, **X** = last digit of your ID + 1

2. Suppose we want the following bits to be communicated.

   Case 1: 11010001111111111111111111111010
   Case 2: 10010110100101010101011001000011010

   Explain briefly for each case, if and how the following design considerations will affect our communication.
   a. Baseline wandering
   b. DC components
   c. Self-synchronization