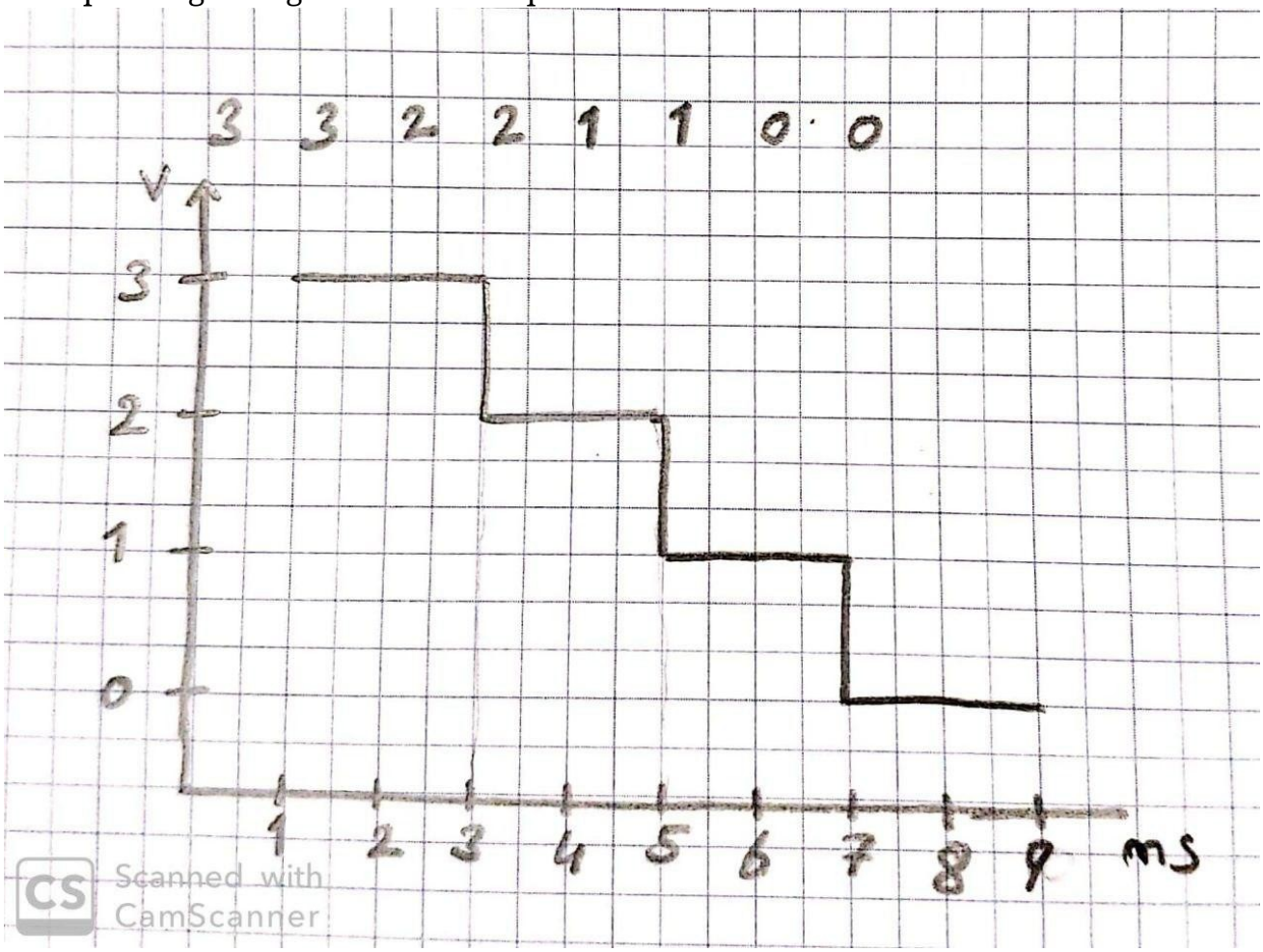
GIT Department of Computer Engineering
CSE 232 - Spring 2020
Homework 1

BARAN HASAN BOZDUMAN
171044036

1. Assume that 0 V is encoded as 00, 1 V as 01, 2 V as 10, and 3 V as 11. You are given a digital encoding of an audio signal as follows: 1111101001010000. Plot the re-created signal with time on the x-axis and voltage on the y-axis. Assume that each encoding's corresponding voltage should be output for 1 millisecond



2. Convert the following binary numbers to decimal numbers:
a.3
b.15
c.30
d.60
e.26

3. Convert the following binary numbers to hexadecimal:
1100 1101
a.CD
1010 0101
b.A5
1111 0001

c.F1
1 1011 0111 1100
d.1B7C

4. Convert the following hexadecimal numbers to decimal:
a.16
b.1251
c.4080
d.512

5. Encode the following words into bits using the ASCII encoding table in Figure 1.9
L E T
a.01001100 01000101 01010100
R E S E T !
b.01010010 01000101 01010011 01000101 01010100 00100001
H E L L O space $ 1
c.01001000 01000101 01001100 01001100 01001111 00100000 00100100 00110001