20

CT-2.

Data communications

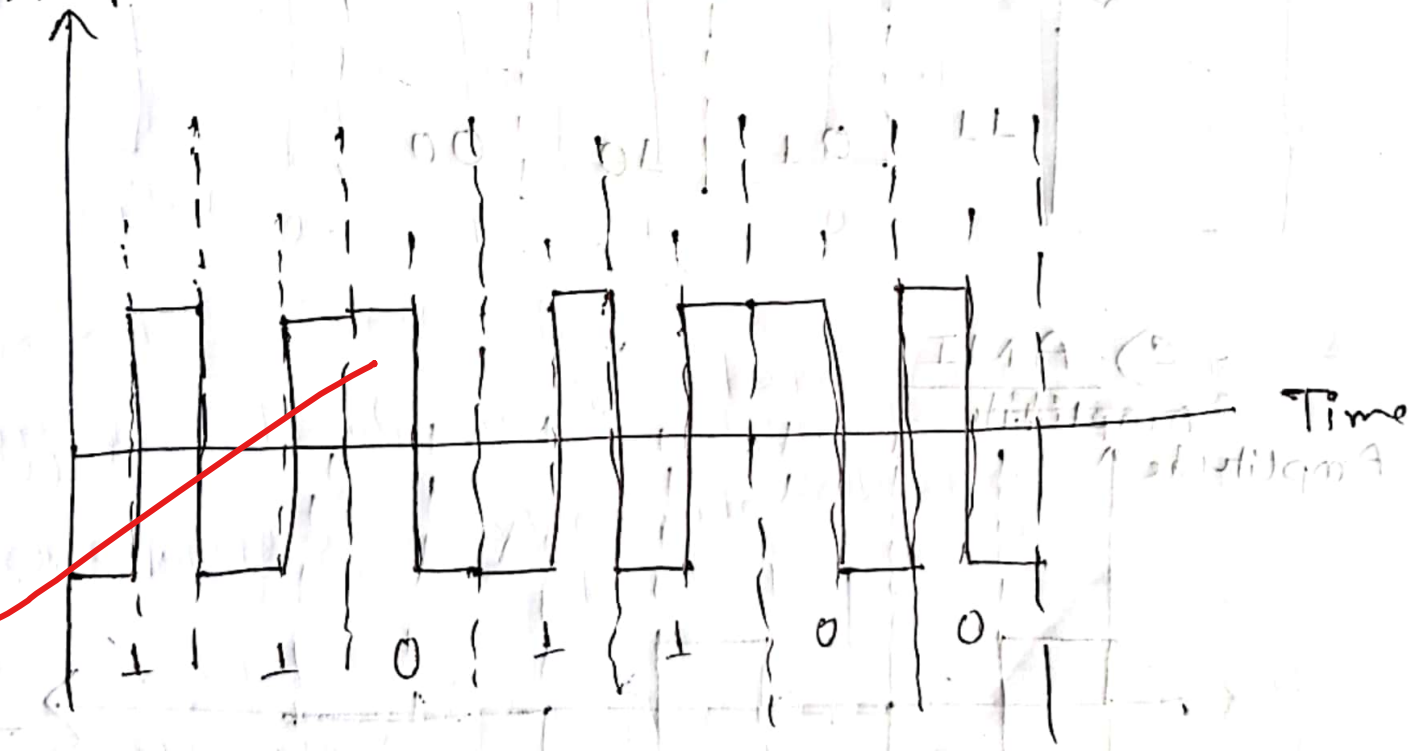
Ans to the ques no: 1(a)

Birthday: D = 01/08

$(0108)_{10} = (1101100)_2$

My ID = 18101005 (not divisible by 3 and odd)

a) Manchester, (NRZ-L + RZ) 0 → (+)ve
1 → (-)ve

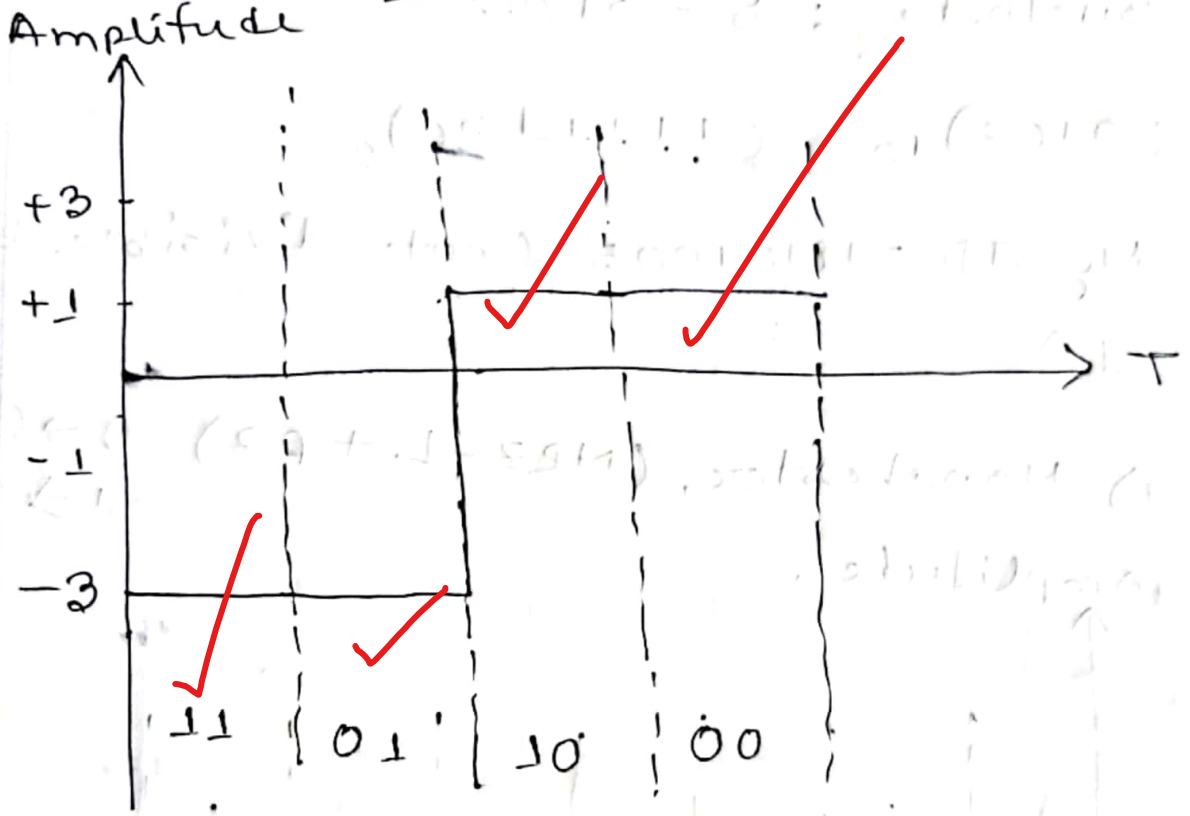


P.T.O

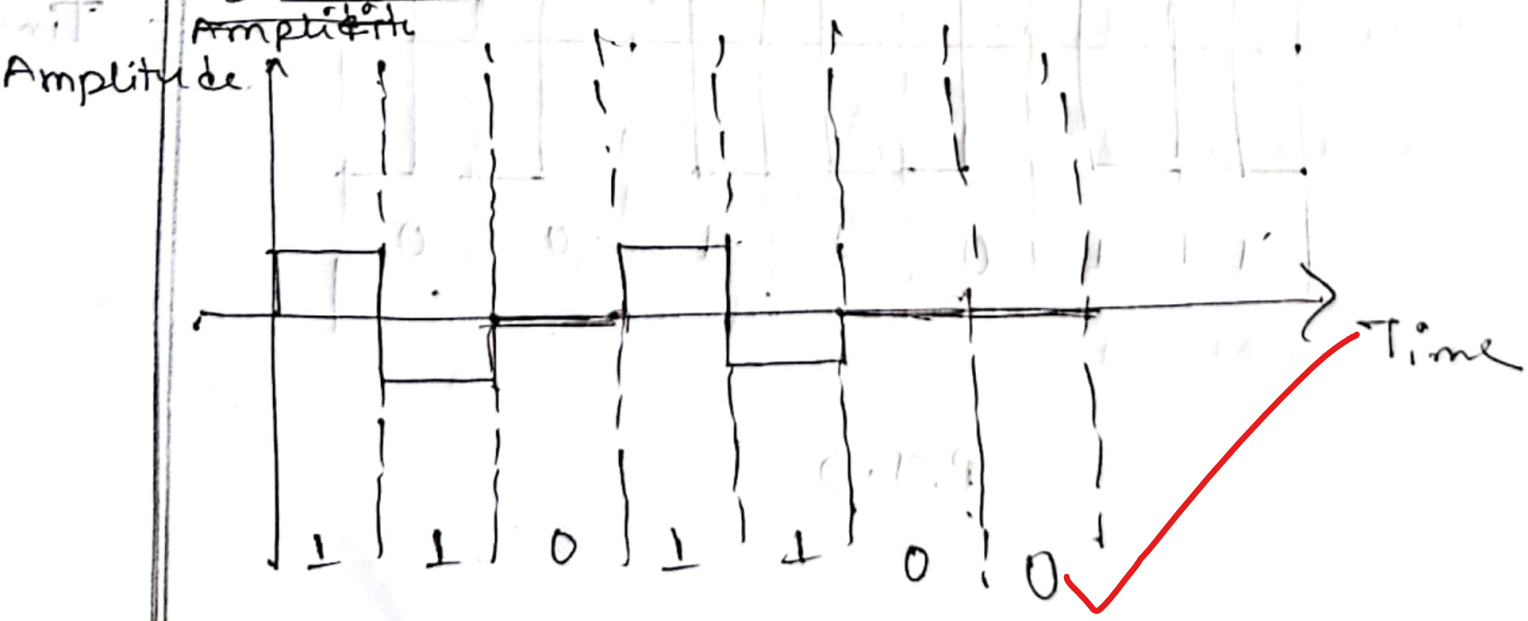
② 18101005.

b) 2B1Q.

$(11011100)_2$



c) AMI



3-18101005

(b) Ans to the ques no: 1 (b)

a) Manchester. is combination of (NRZ-L + RZ).

i) Baseline wandering problem cannot occure in this scheme.

ii) DC components and self-sychronization can't be occure also. But it need 2x bandwidth then RZ and NRZ.

b) 2B1Q : Base Line wandering problem for some sequence can happen. if it is (00000000) then bare line can occure. But DC components are solved. Bandwidth is as usual, and no DC.

c) AMI : ~~long~~ ~~string~~ Synchroniza tion problem can occure. and DC component problem can occure.

So, 2B1Q is better than others.