1.a) First 4 digit of my birthdate 0409
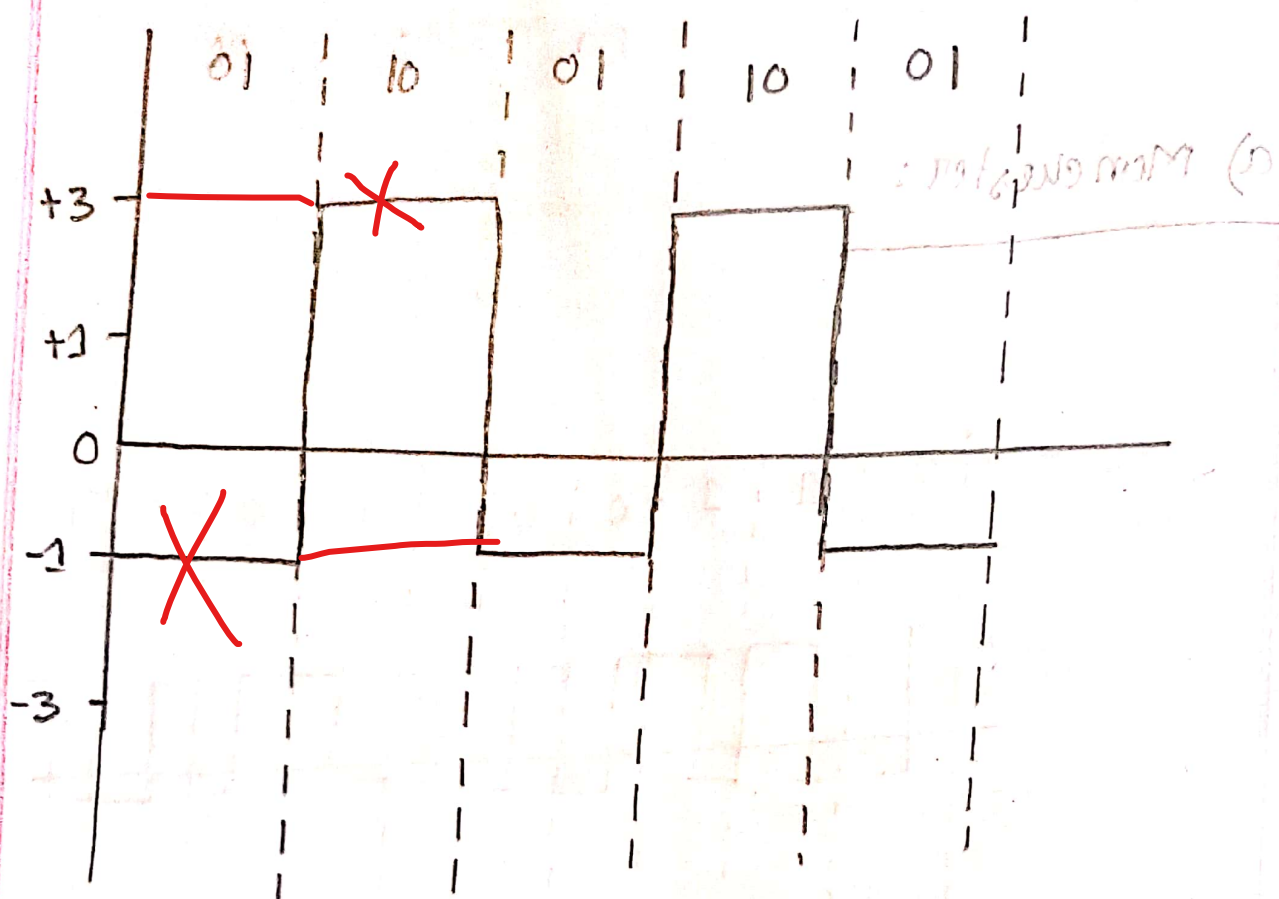
$$(0409)_{10} = (0110011001)_2$$

a) Manchester :
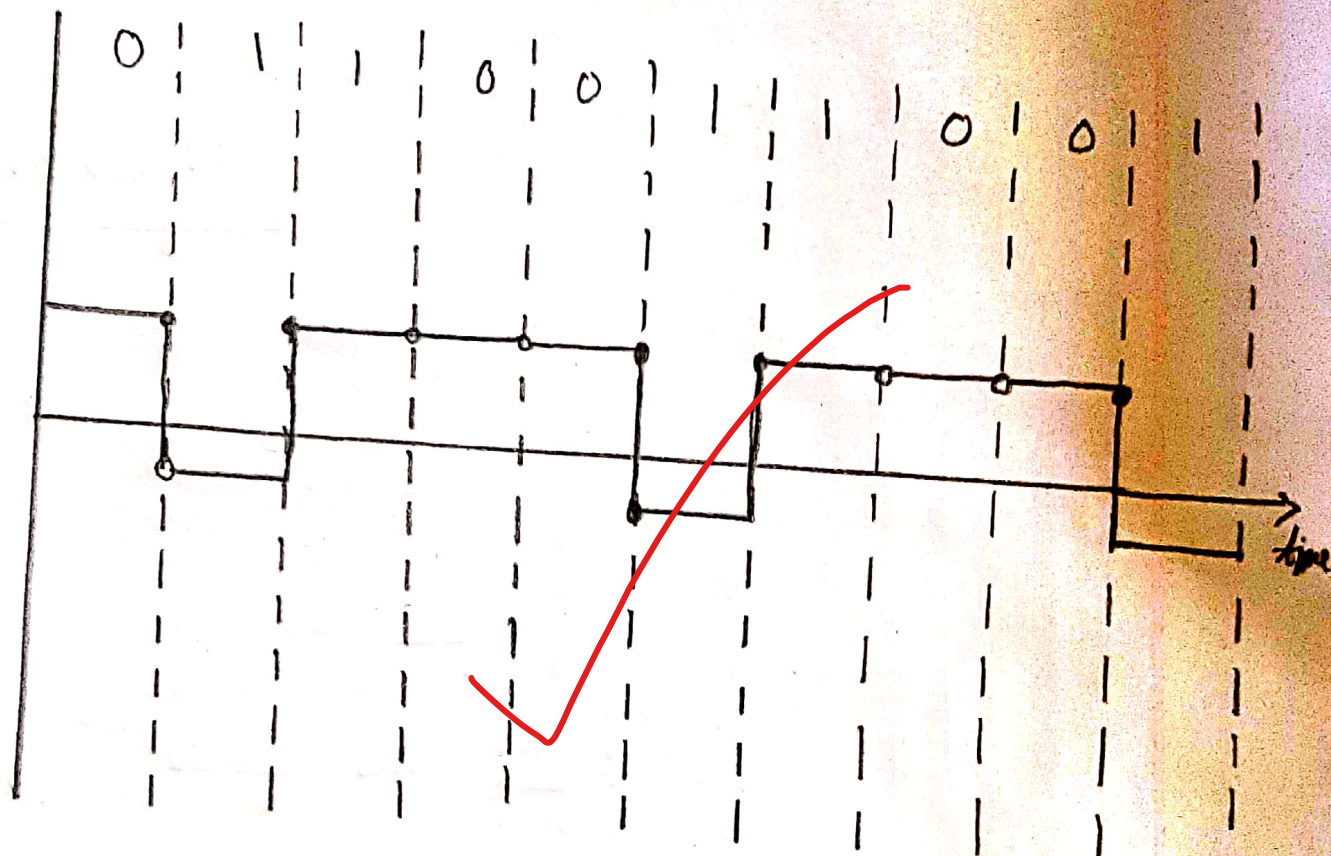
Find 4 bight of any birdikale over

b) 2B1Q

$(6103)_{10} = (0110\ 0110\ 0100)_2$

c) Manchester :

| | 01 | 10 | 01 | 10 | 01 |

$+3$

$+1$

0

-1

-3
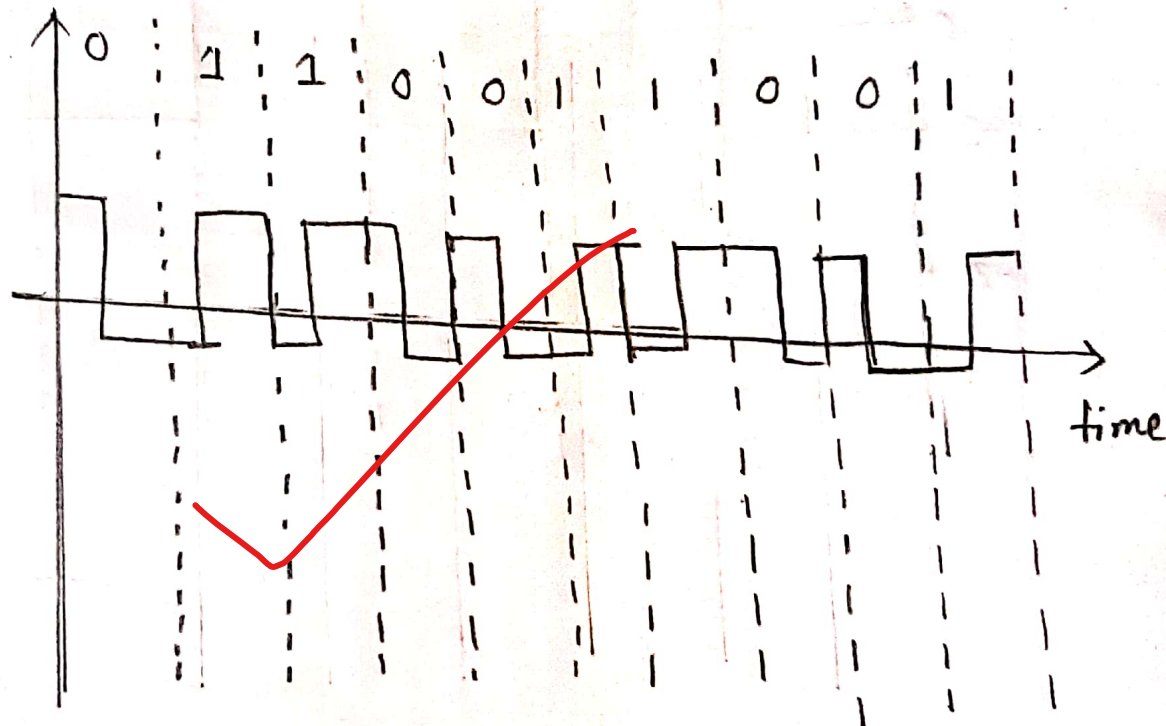
c) NRZ – I

b) Between Unipolar, Polar and Bipolar —

Unipolar → This scheme is very costly

Polar → Here is synchronization problem

Bipolar → This scheme is developed as an alternative to NRZ.

No problem occur in long 0's or 1's sequence.

So, ~~BiP~~ Bipolar scheme is better.