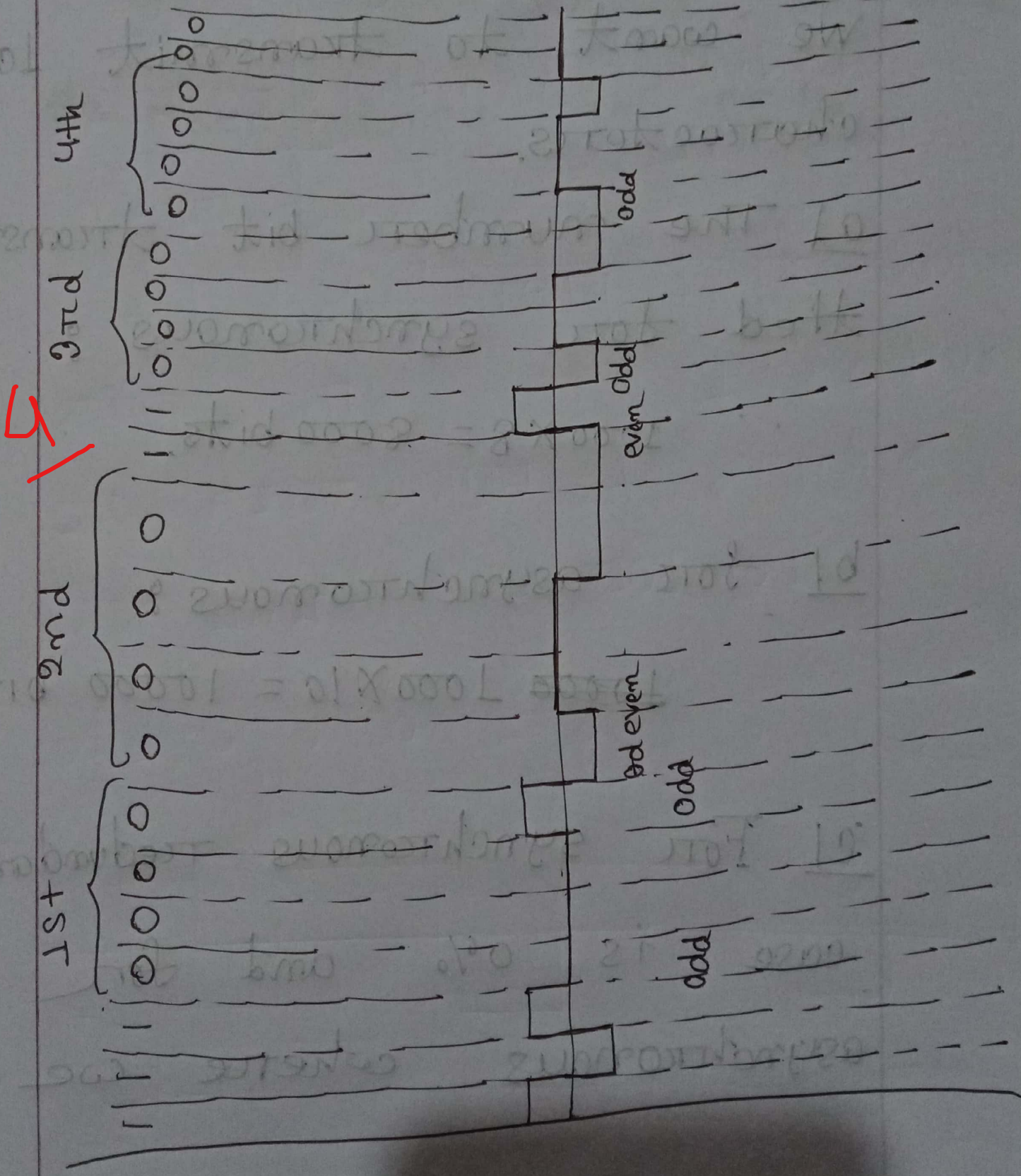1. My ID is odd.

data elements : 11100000000110000000000

Ans to the Q. no. 2

a.

We want to transmit 1000
characters.

a) The number bit transmi-
tted for synchronous :

$$1000 \times 8 = 8000 \text{ bits.}$$

b) for asynchronous :

$$10000 \quad 1000 \times 10 = 10000 \text{ bits.}$$

c) For synchronous redundancy

case is 0% and for

asynchronous where we

send no more 2000 bits than synchronous, so the de redundancy is $2\frac{1}{2}\%$.