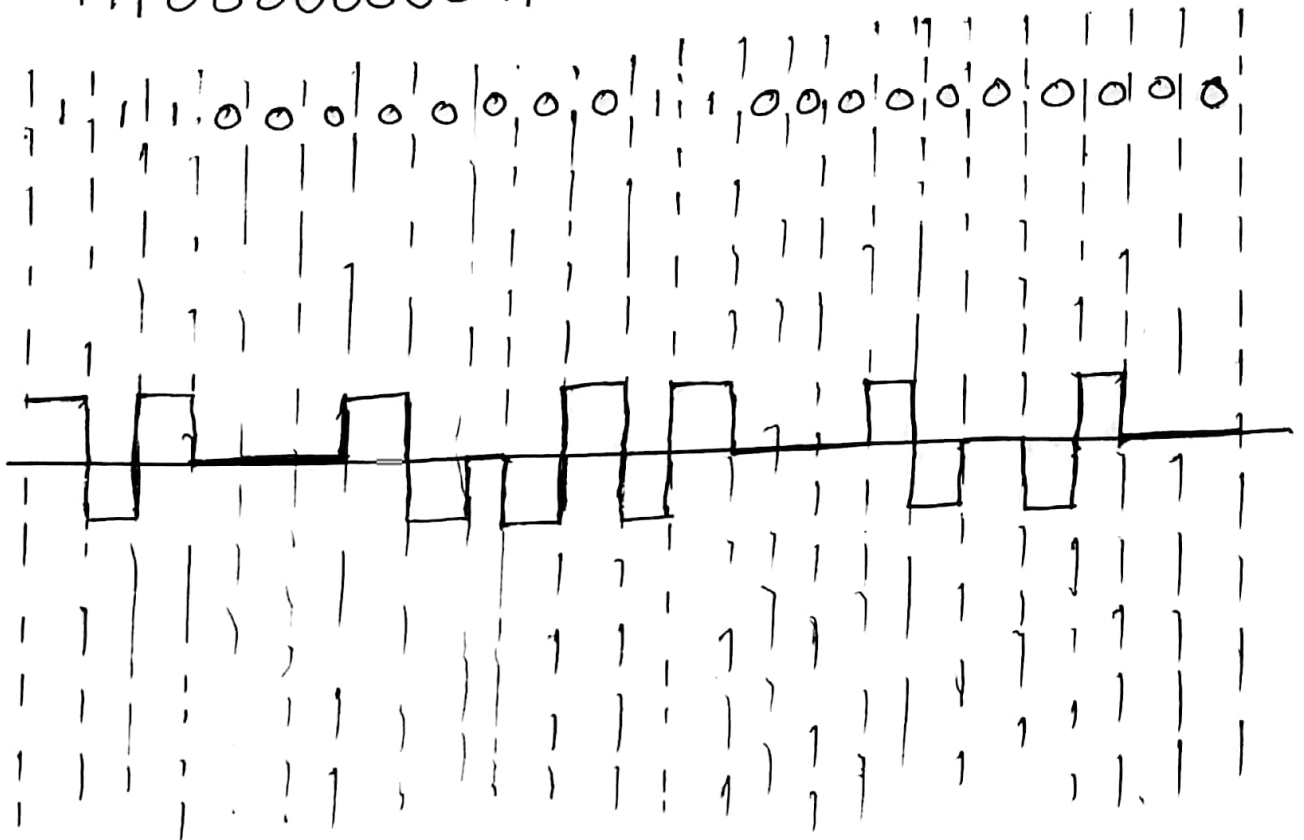


Rumman Ahmed Foadham
18101018

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① My ID is 18101018. It is even
B8ZS:

11100000000011000000000000



Previous level is positive

Ans. to the Q-2

② For synchronous transmission we do not need any extra bits. So for 8 bits data we will send 8 bits only.

~~Total transmission~~

$$\begin{aligned}\text{Total transmitted bits} &= 1000 \times 8 \\ &= 8000 \text{ bits}\end{aligned}$$

⑥ for asynchronous transmission we need extra 2 bit for sending each bits.

$$\begin{aligned}\text{Total transmitted bits} &= 1000 \times 10 \\ &= 10000 \text{ bits}\end{aligned}$$

③ For synchronous,

$$\text{Total transmitted bits} = 8000 \text{ bits}$$

$$\text{Total bits} = 8000 \text{ bits}$$

$$\text{redundancy percent} = \frac{\begin{array}{r} 8000 \\ 8000 \\ \hline (8000-8000) \\ \hline 0 \end{array}}{8000} \times 100\%$$

$$= 0.1\%$$

no. of redundancy = 0%
for asynchronous,

Total bits = 10000 bits

Total transmitted bits = 8000 bits

$$\text{redundancy percent} = \frac{\begin{array}{r} 8000 \quad 10000 \\ 10000 \quad 8000 \\ \hline 10000-8000 \\ \hline 2000 \end{array}}{10000} \times 100\%$$

$$= 20\%$$

25% redundancy percent.