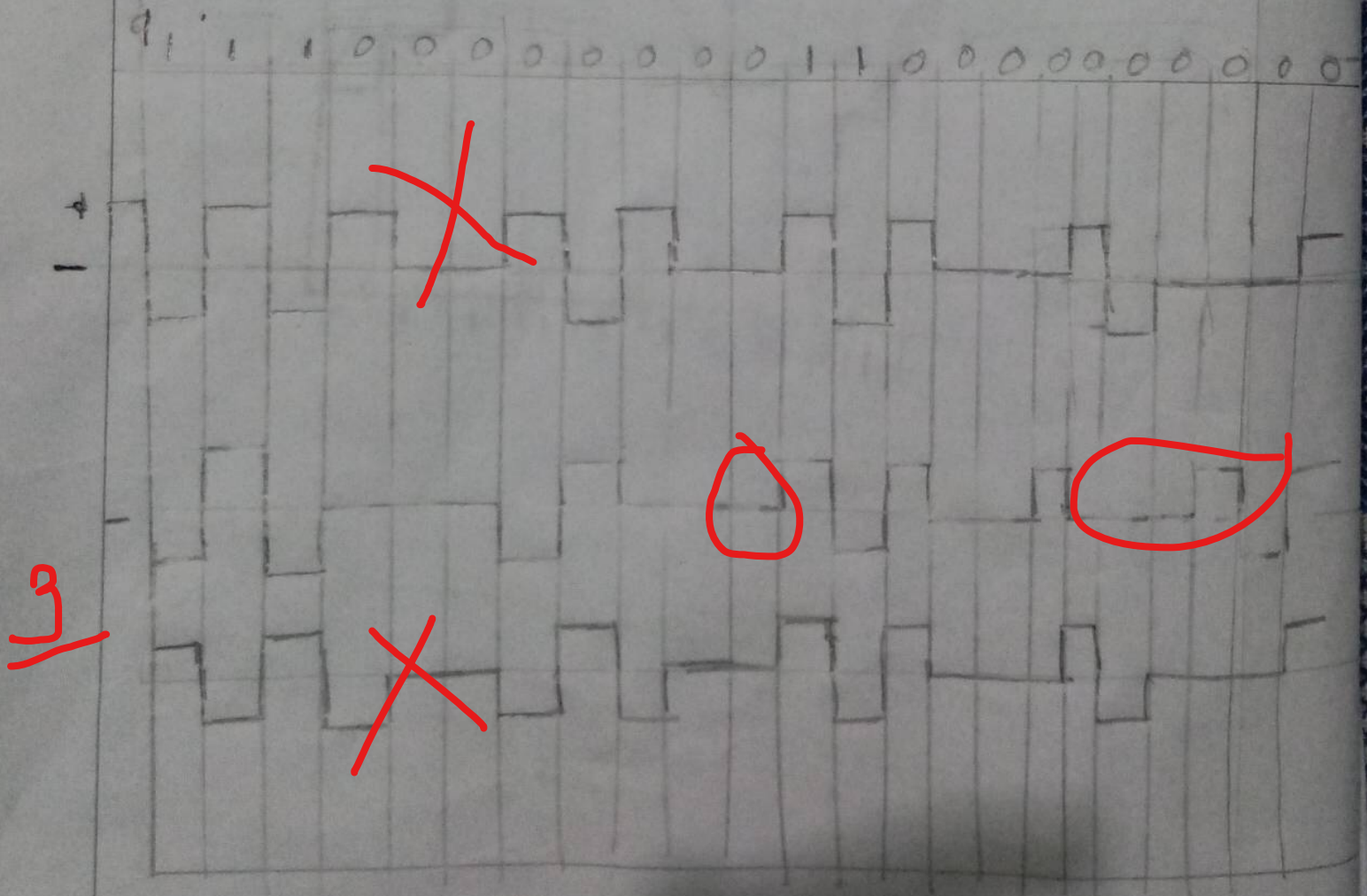
Ans. to the Q. no. 1

ID = 18101035 - odd

using HDB3 using AMI technic

111 000 00000 11 0000 0000 000



Ans. to the Q no. 2

We have to transmit 1000 character encoded as 8 bits.

Synchronous:

$1000 \times 8 = 8000$ bits number.

asynchronous: $1000 \times 10 = 10000$ bit.

Here one is stop bit and one is start bit.

Synchronous redundency case is 0%.

And asynchronous redundency is 25% as we have to send more than 2000 bits.