Subject :   Date :

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Course Code : CSE 303 (A)

CT#

Ans To The Q No. 1

My ID is even. So I'll use B8ZS technique.

Given,

‖ 11 10 00 0,0 0000 11 0000 000000
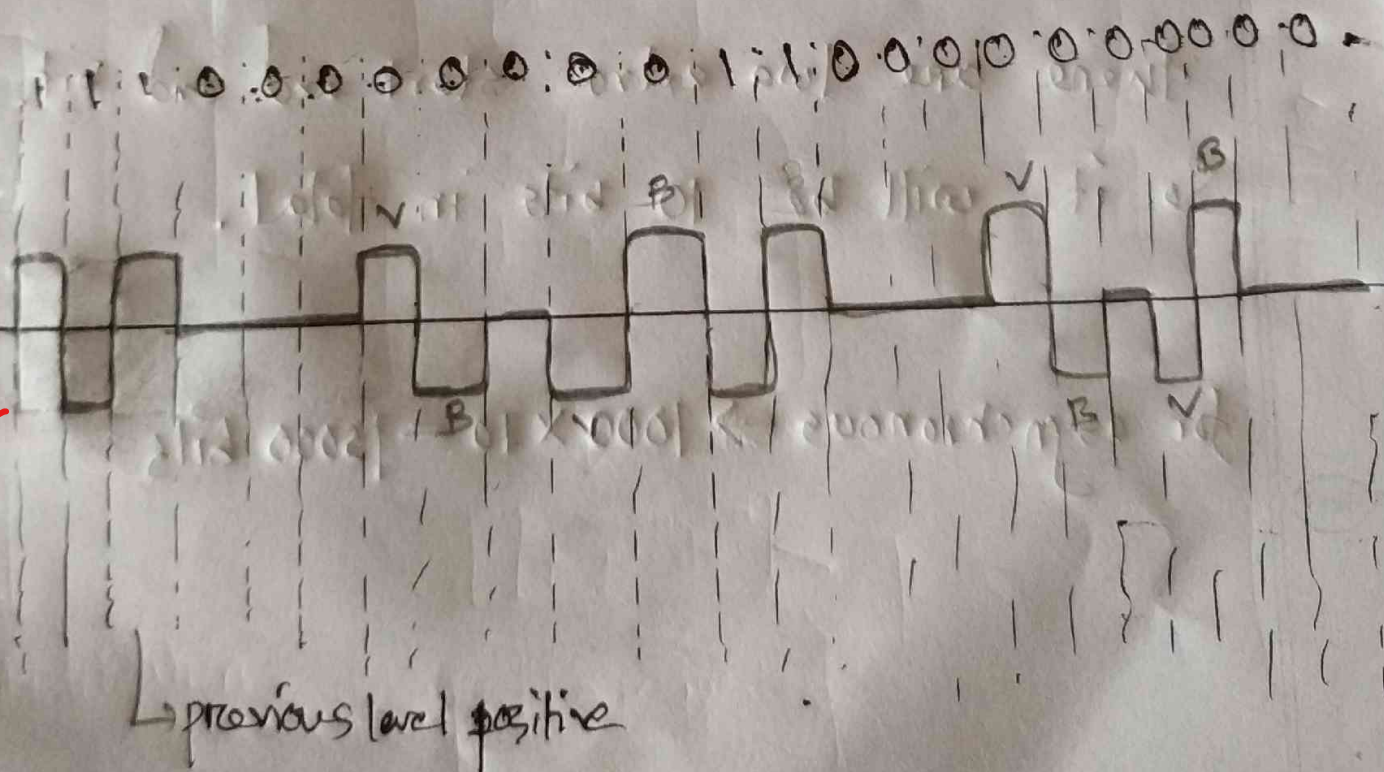
we replace consequtive eight 0s with 000V B0VB

↳ previous level positive

fig: B8ZS.

Ans To The Q NO : 2

we have to transmit 1000 characters encoded as 8 bits.

(a). We know, for synchronous transmission the 8 bit stream are combined into frames an it goes by 8 bits.

0 0 1 0 0 0 0 0 0 0 0 0 0 11 0 0 0 0 0 0 0 0 0

for synchronous → $1000 \times 8 = 8000$ bits.

(b) We know, for asynchronous transmission there are two extra start and end bit. So it will be 10 bits in total.

for asynchronous → $1000 \times 10 = 10000$ bits

© For case (a) or synchronous case the redundancy ~~pen~~ is 0%.

For case (b) or asynchronous case the ~~redundancy is~~ we send extra $(10000 - 8000)$
$= 2000$ bits for 800̶0̶ b̶

So the redundancy is 25%