

CSE 335 (DC)

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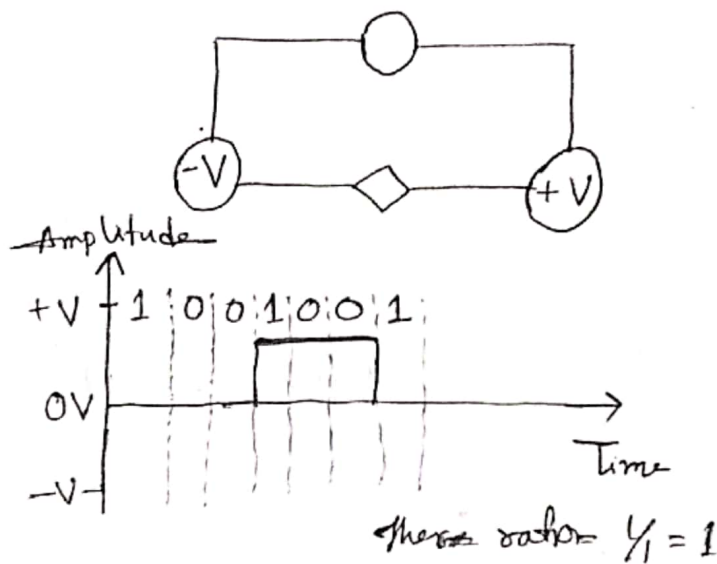
Date: 12/09/2020

Batch - 67 (A)

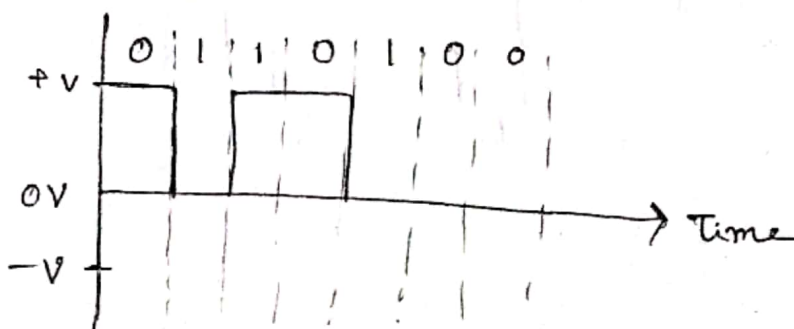
Ans to the que no-1 (a)

Multitransition: MLT-3 Scheme

a. 1001001



b. 0110100

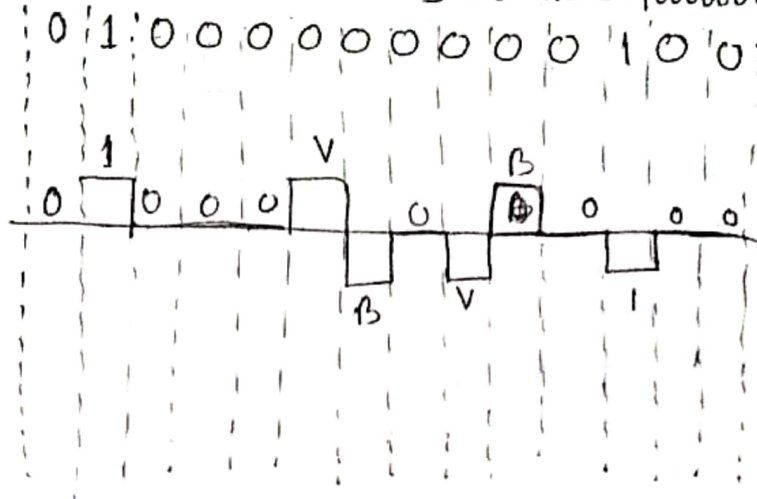


the signal $Y_i = 1$

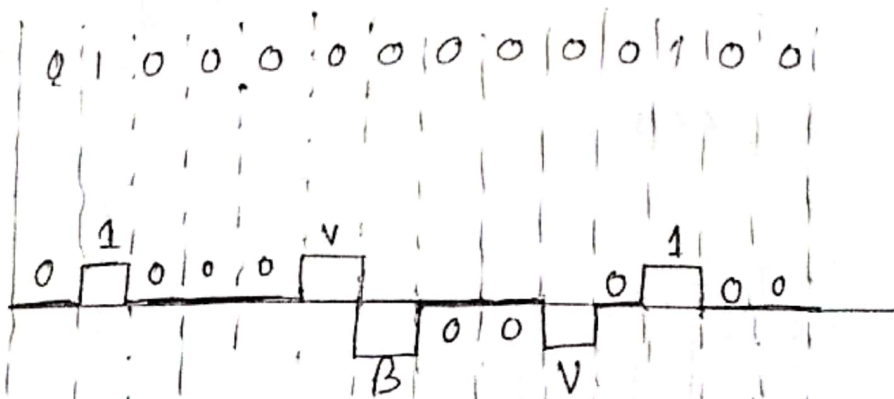
2

Ans to the que no-1(b)

a) The result of scrambling sequence 0100000000100 using B8ZS



b) The sequence 0100000000100 using HDB3



3

Ans to the que no - 2(a)

Data word - 1101101

$$\rightarrow x^6 + x^5 + x^3 + x^2 + x^0$$

Divisor $\rightarrow 1101$

$$\rightarrow x^3 + x^2 + x^0$$

High power of divisor x^3

$$(x^6 + x^5 + x^3 + x^2 + x^0) \times x^3$$

$$= x^9 + x^8 + x^6 + x^5 + x^3$$

$$\text{Codeword} \rightarrow x^9 + x^8 + x^6 + x^5 + x^3$$

$$\begin{array}{r} x^3 + x^2 + x^0 \overline{) x^9 + x^8 + x^6 + x^5 + x^3} \\ \underline{x^9 + x^8 + x^6} \end{array}$$

$$\begin{array}{r} x^5 + x^3 \\ x^5 + x^2 \\ \hline x^4 + x^3 + x^2 \\ x^4 + x^3 + x \\ \hline \end{array}$$

$x^2 + x \rightarrow \text{Remainder}$

$$\therefore \text{Codeword} \rightarrow \boxed{x^9 + x^8 + x^6 + x^5 + x^3} \boxed{x^2 + x}$$

A

Ans to the que - 11c)

<u>Dividend</u>		<u>Divide Site</u>	
10		11	
17		13	
0		6	
sum → 24		sum → 36	
→ 9		w rpp sum 6	
6		check sum → 9	
11000 → 24		100100 → 36	
└ → 1		└ → 10	
1001 → 9		0110 → 6	
0110 → 6		1001 → 9	

→ [10, 17, 6]

Here I received site check 9. if receive site checksum is 0 then we will accept the data at received site. But receive site checksum.

ex

Data word : 11000 (24)

Divisor: 1100

Code word : 11000000

6

$$\begin{array}{r}
 1100 \mid 1100000 \\
 \underline{1100} \\
 0000 \\
 0000 \\
 \underline{0000} \\
 0000 \\
 \underline{0000} \\
 0000 \\
 \underline{0000} \\
 0000 \\
 \underline{0000} \\
 0000 \\
 \underline{0000} \\
 000 \text{ remainder}
 \end{array}$$

Code word

11000 000

Data word Code word