Name Page=1

Uzair Ichan

ID

13909

Program

B-Tech

Subject

Data & compute

Submitted

To Sir=> Zulqarnain.

Semester

6th.

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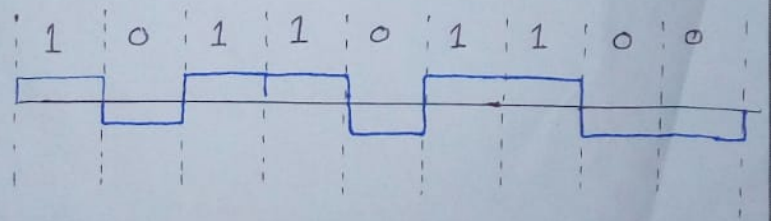
Q(1) Draw The waveform for Transmitting binary bit stream 10110100 for

(i) Polar NRZ (ii) Bipolar

Ans => Polar NRZ :=) In This Type of Polar
// - // - // - signaling a high in data is represented by a Positive Pulse, while a Low in data is represented by a negative pulse.



=> Wave form of Polar NRZ

(iii) Bipolar => Bipolar signal is a signal
〃 〃 〃
That may assume either of Two Polarities, neither of which is zero A biopolar signal may have a Two state non-return-to-zero (NRZ) or a Three-state return-to-zero (RZ). ~~binary~~

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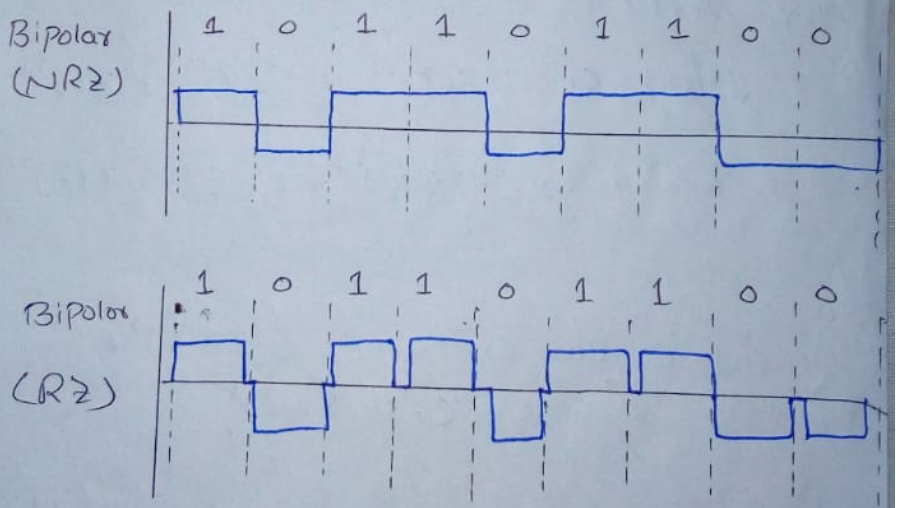

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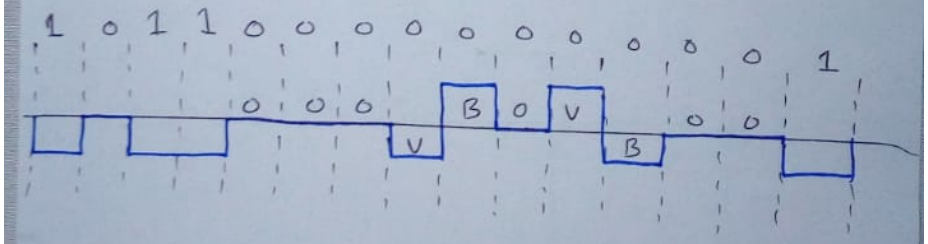
Q(2) Draw the waveform for Transmitting binary stream 1011000000001

(i) B8ZS (ii) HDB3

Ans=> (i) B8ZS => Binary 8 Zero Substitution works in a similar way to AMI by changing Poles for each binary 1. Moreover when it found 8 Consecutive 0's it replace them by 000VB0VB. Here V means violation & B mean's Bta Balancing.

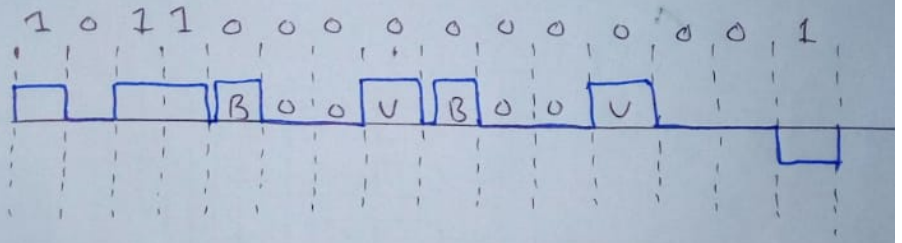


Wave form of B8ZS.

(ii) HDB3 => 1011000000000001

" - " - " -

=> Wave form of HDB3



Q(3) Compare & contrast Flow Control & error control?

Ans => Flow control & error control are two different mechanisms that are used for accurate data transmission. If the sender speed is higher & the receiver speed is lower, there is a speed mismatch then the flow of data send should be controlled. This Technique is know as flow control.

During the Transmission, errors can occur. If the receiver identifies an error, it should inform the sender that there is an error in the data. So, the sender that retransmit the data this Technique is known as error control.

=> The key difference b/w Flow & Error control.

-> Flow control => To maintain the flow of data from sender to receiver.

-> Error control => To find out whether the data delivered to receiver is error free & reliable.

Q(4) What is the difference b/w hard handoff & soft handoff?

Ans) soft hand off=) Entails Two connection to
// - // - // - The cell phone from Two different base stations. This ensures that no break ensues during the hand off, Naturally it is more costly than a hard handoff.

=> During hand off =)

-> First connection will be broken. Then new connection will be establish.

=> Hard hand off=) charcterized by an
// - // - // - actual break in the connection while switching from one cell or base station to another. The switch Takes place so quickly that it can hardly be noticed by the user. Because only one channel is needed to serve a system designed for hard handoffs, it is the more affordable option.