

## DCN Answers

1.

A. Error is caused by noises or other impairments during transmission from the transmitter to the receiver. Simply said we sent the message to others that can change to different encrypted data that's called data communication error.

B. the receiver frame, only one bit has been changed 0 to 1 or 1 to 0 that call one bit error

1	0	1	1	0	0	1
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1	0	1	0	0	0	1
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Burst error means in the receiver frame, more than one continuously bits are changed

1	0	1	1	0	0	1
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1	0	0	0	1	0	1
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C. parity checking check each set of transmitted bits has odd number of bits count in one (1) if the total number is odd that call odd parity. as a same time total number is even that's call even parity.

2.

i.

01011100 } Sixth position of bit is changed .  
01011000 }

ii. Single parity check, Checksum can detect the error sent the message received time  
Checksum can check message is correct or wrong that time identify the checksum  
message is wrong

iii. Single bit error we can be correct but multi bit error we can't correct them.

Decoding one bit code correct the 2 steps

First one is received bits convert to the codeword

Second one is codeword is convert to the source bits that mean use the reverse map  
of the sender