NAME.-
UID –
SEM –
BRANCH – BTECH CSE
SUBJECT – CN SURPRISE TEST 2

Q1 Construct an example to explain the parity check method used for error detection.

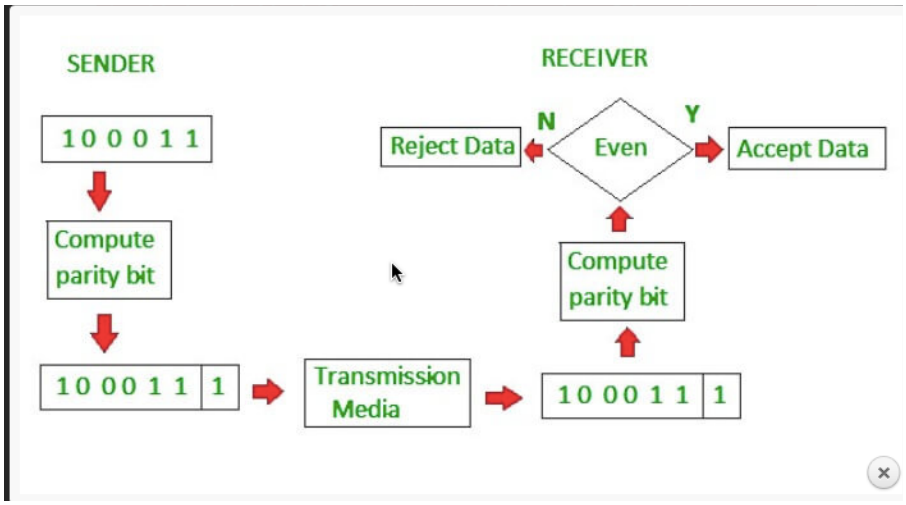
SOL

Parity check
Blocks of data from the source are subjected to a check bit or parity bit generator form, where parity of :

1 is added to the block if it contains an odd number of 1's, and

0 is added if it contains an even number of 1's

This scheme makes the total number of 1's even, that is why it is called even parity checking.



Q2 - If the original data to send is 10011001 11100010 00100100 10000100. How would it be possible to detect error using two dimensional error detecting technique?

SOL –

10011001 + 11100010 + 00100100 + 10000100 = 1000100011

Since the result consists of 10 bits, so extra 2 bits

00100011 + 10 = 00100101 (8 bits)

1's complement =11011010

checksum value = 11011010

Sum of all segments + Checksum value = 11111111

Complemented value = 00000000

the result is 0, the receiver assumes no error occurred in the data.