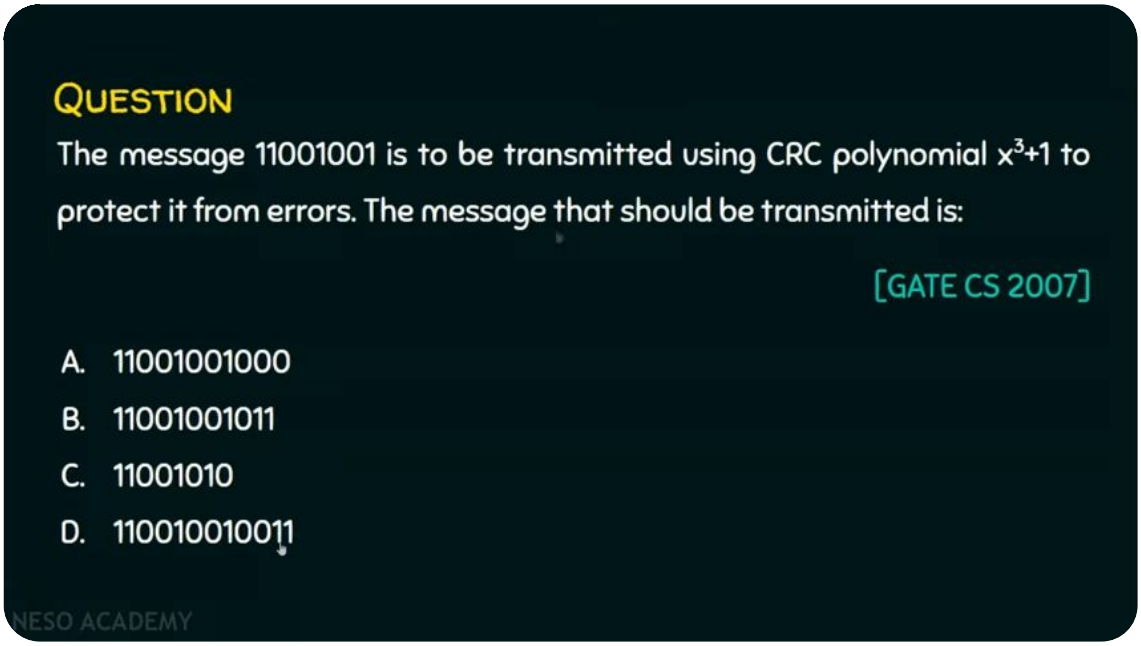
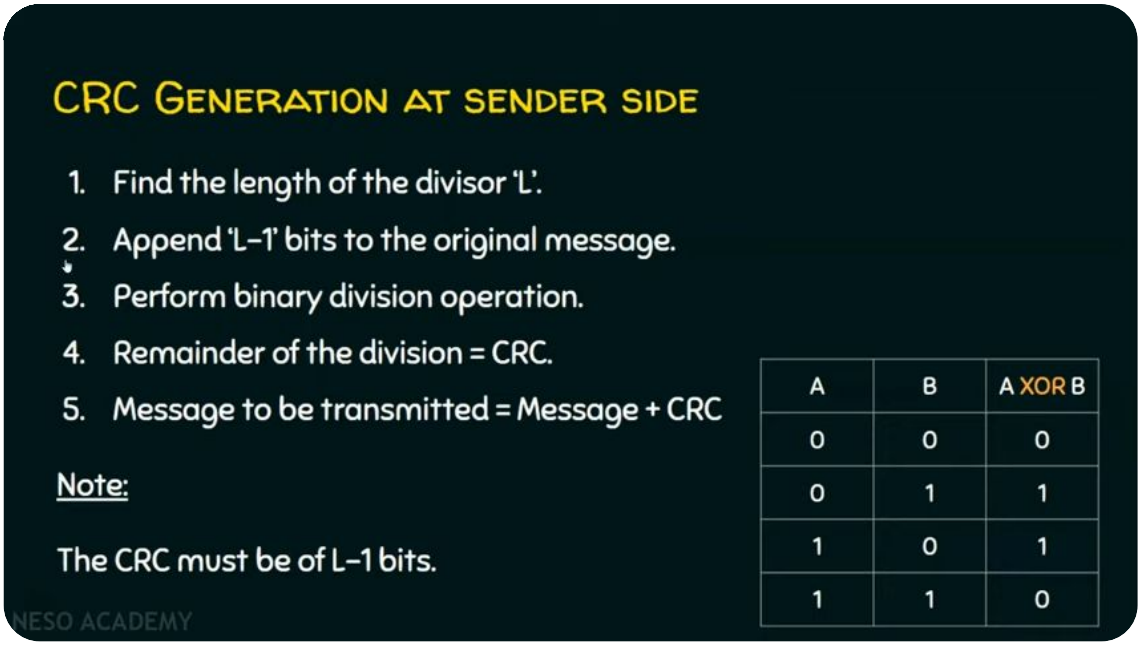
01:07



01:25



02:28

CRC Generation at sender side

1. The length of the divisor is 4. ($x^3+1 = 1x^3+0x^2+0x^1+1$) = 1001
2. Append '4–1' bits to the original message. (3 bits are appended)
3. Perform binary division operation.
4. Remainder of the division = CRC.
5. Message to be transmitted = Message + CRC

Note:

The CRC must be of L–1 i.e 4–1 =3 bits.

A	B	A XOR B
0	0	0
0	1	1
1	0	1
1	1	0

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06:50

CRC Generation

```
          1 1 0 1 0 0 1 1
      ---------------------
1 0 0 1 | 1 1 0 0 1 0 0 1 0 0 0
        | 1 0 0 1
        | -------
        |   1 0 1 1
        |   1 0 0 1
        |   -------
        |     0 1 0 0 0
        |       1 0 0 1
        |       -------
        |       0 0 0 1 1 0 0
        |           1 0 0 1
        |           -------
        |           0 1 0 1 0
        |             1 0 0 1
        |             -------
        |             0 0 1 1   CRC
```

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07:13

Message to be transmitted

Message to be transmitted = Original Message + CRC

Message to be transmitted = 11001001 011


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