

## Decrypting CBC with simple XOR (10 points)

Number : 199606131115

We first retrieve the IV block which is the first 12 bytes of the encrypted text.

Then we can deduce the key by doing the operation  $key = IV \oplus C_0 \oplus M_0$  (because we have  $C_i = key \oplus (M_i \oplus C_{i-1})$  and here with  $i = 0 : C_{i-1} = IV$ ).

We can then decrypt the message by deducing  $M_i$  for each  $i : M_i = key \oplus C_i \oplus C_{i-1}$ .

For the input generated for 199606131115, we obtain :

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Recovered message: 199606131115I decrypted a CBC message and all I got was this lousy sentence.00000000
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