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i) $p = 3$ $q = 11$ $\boxed{m = 3 \times 11 = 33}$ $\boxed{E = 7}$

Suppose $`a' = 3$

$a^\wedge 7 = (3)^7 = 2187$

$2187 = 33 \times 66 + 9$

After diving by n reminder is 9

The encrypted message to be sent is 9

Suppose $D = 3$

$9^\wedge 3 = 729$

After diving $n = 33$ reminder is 3

3 is the original number.

② $\boxed{b=2}$, Suppose $p=3$, $q=11$ $n=3\times11=33$ $E=7$

$E=7$

$2^{7}=128$

$128 = 3\times33 +29$

After dividing with 33 reminder is 29

The encrypted message is 29.

Let's $D=3$

$29^{3} = 29\times29\times29 = 24389$

$24389 = 739\times33 + 2$

After dividing with 33 reminder is

2 is the original message.

③ ┃"c" = 4 ┃ Suppose $P = 3$ and $q = 11$ $n = 3 \times 11 = 33$
and $E = 7$

$C4$

$(4)^7 = 16384$

$16384 = 496 \times 33 + 16$

After dividing by 33 reminder is 16

The encrypted message is 16.

Suppose $D = 3$

$(16)^3 = 4096$

$4096 = 33 \times 124 + 4$

After diving by 33 reminder is 4

4 is the original message.