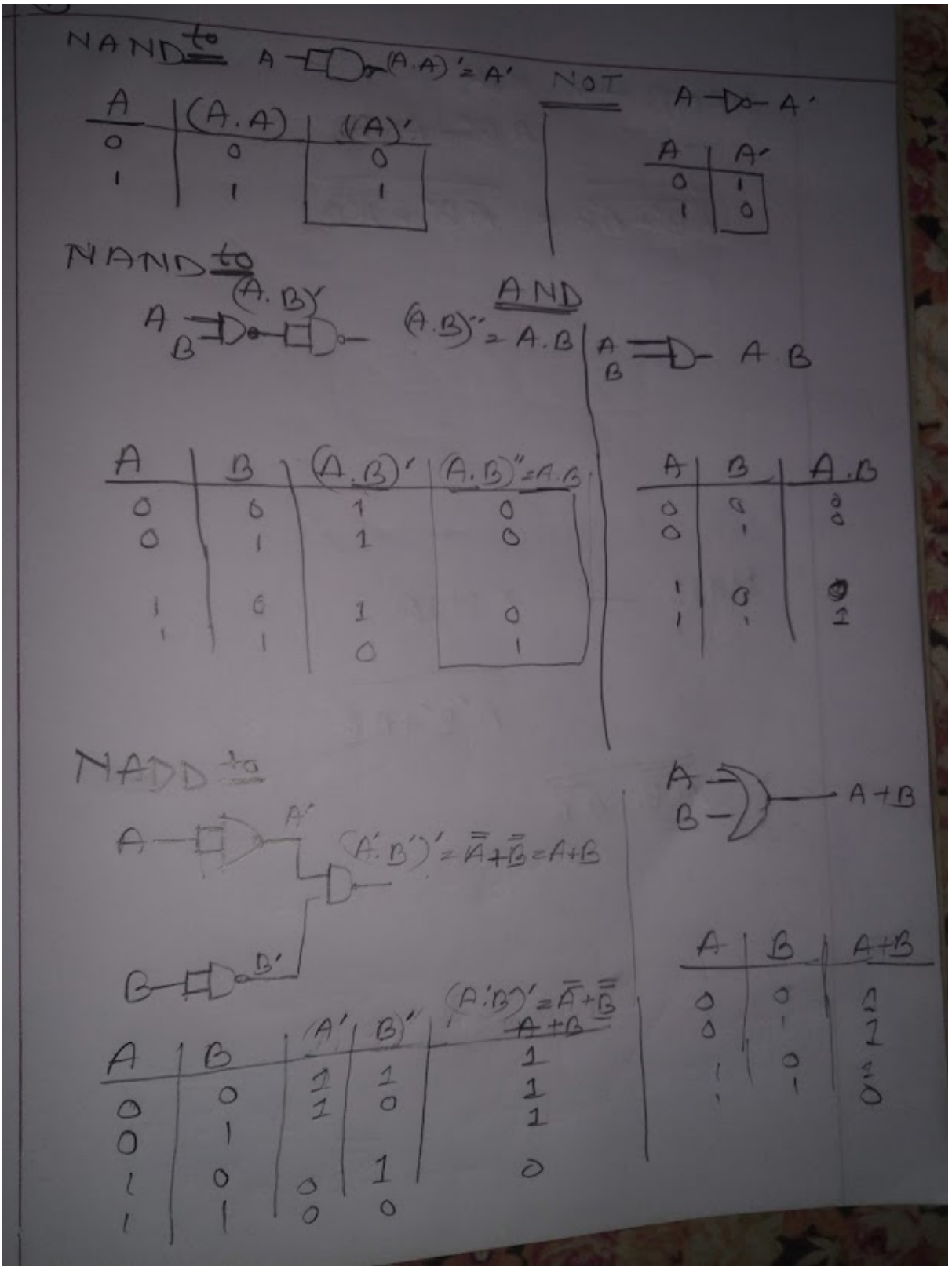
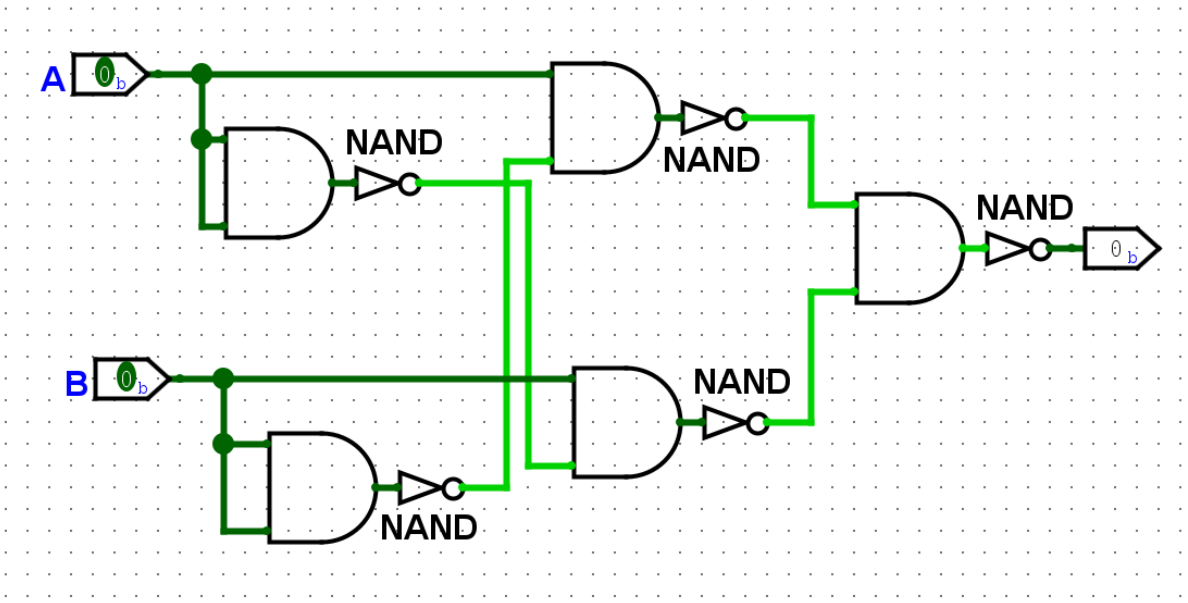
Md. Ishtiaq Ahamed Fahim 2012518642

Task 1:

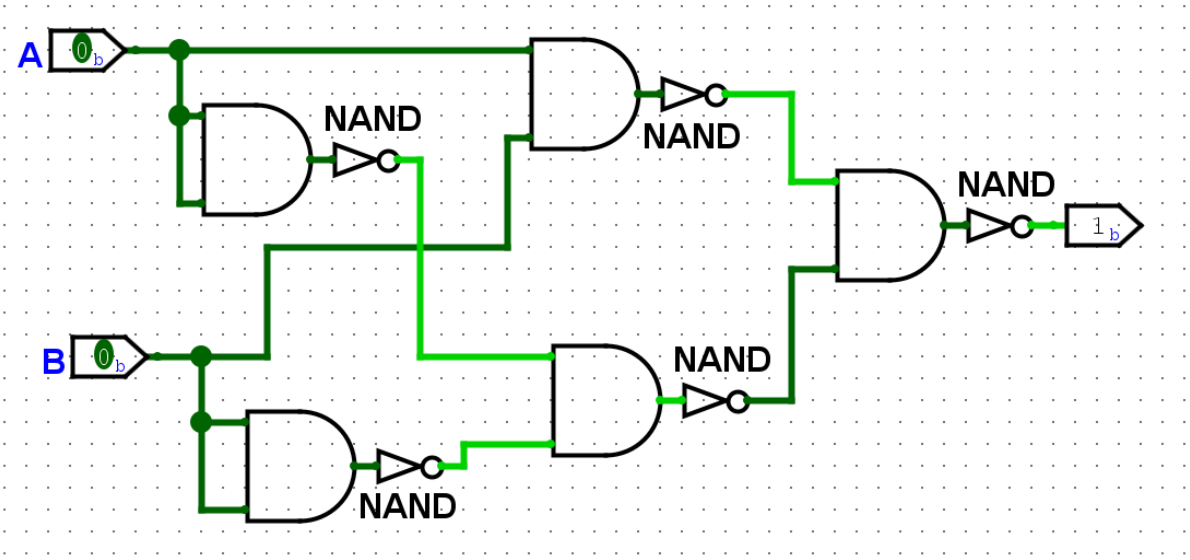


Task 2:

NAND to XOR



NAND to XNOR



Proof

NAND → XOR

$A\bar{B} + \bar{A}B$

$\overline{A\bar{B} + \bar{A}B} = \overline{A\bar{B}} \cdot \overline{\bar{A}B}$

NAND → NOR

$\overline{\bar{A}\bar{B} + AB}$

$\overline{\bar{A}\bar{B}} \cdot \overline{AB}$