



Faculty of Engineering and Technology

Department of Electrical and Computer Engineering

**DIGITAL ELECTRONICS AND COMPUTER ORGANIZATION
LABORATORY (ENCS2110)**

“Pre_Lab2

Comparators, Adders, and Subtractors

Prepared by:

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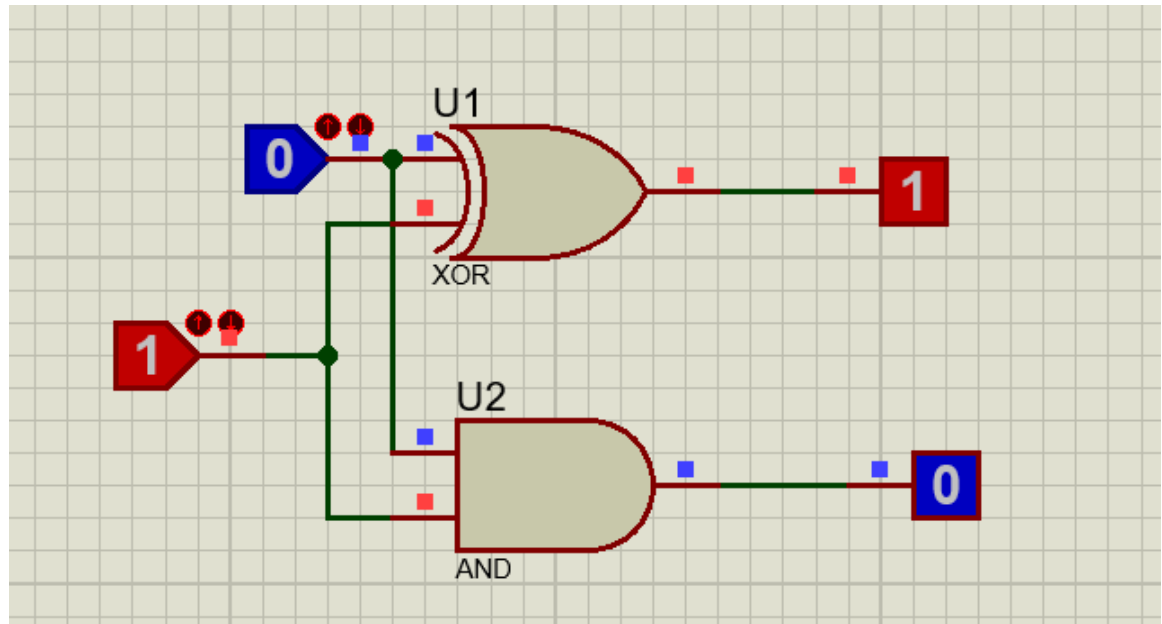
Section: 4

Date: 8 / 14 / 2023

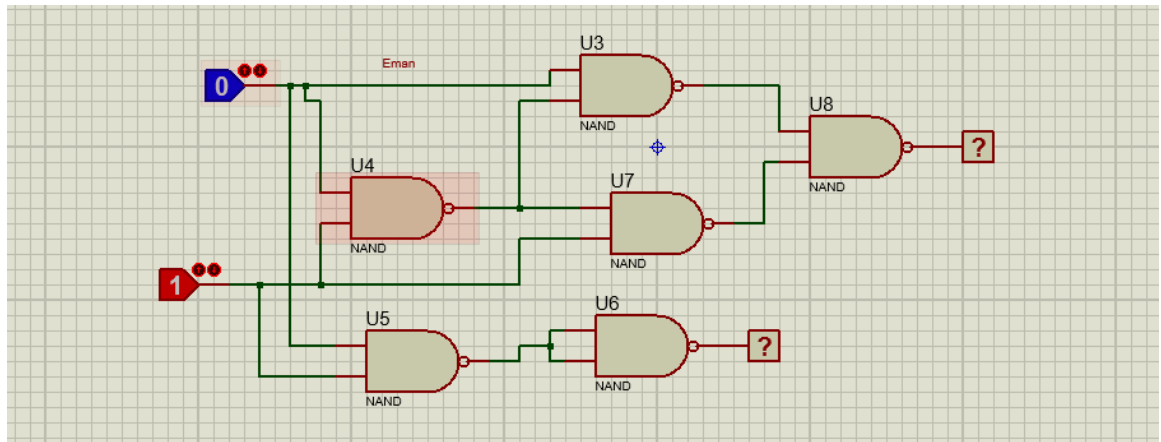
Place: Masri 107

1) Prepare all sections and work out all the required designs.

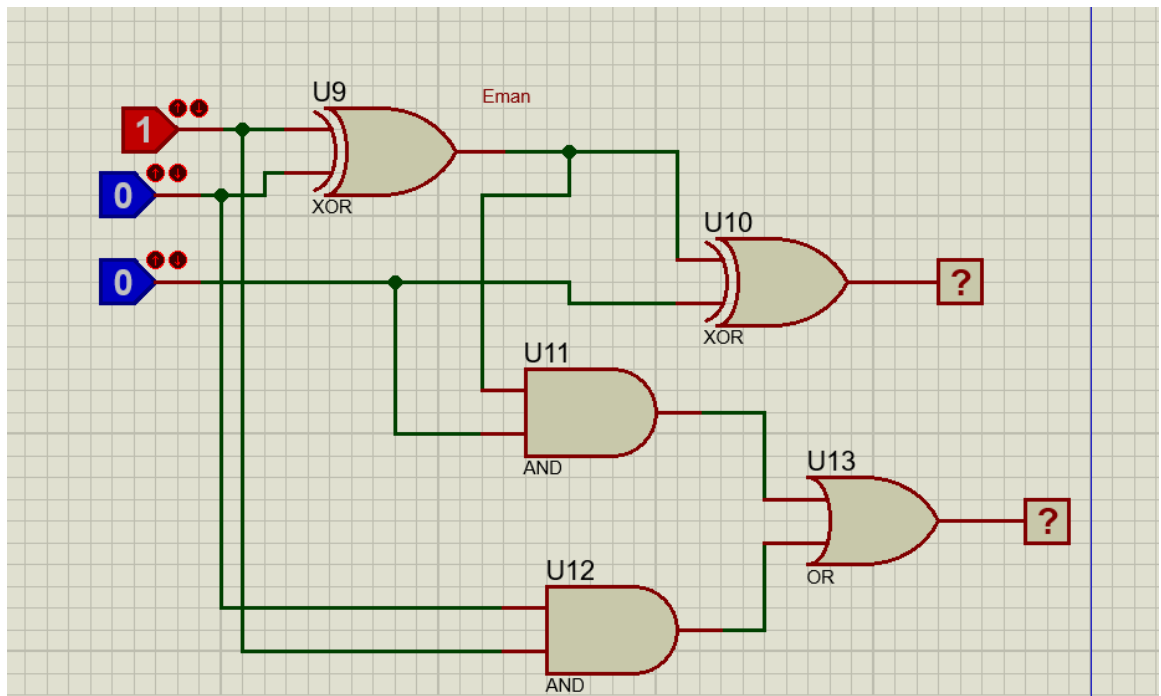
2) Build half adder using basic gates.



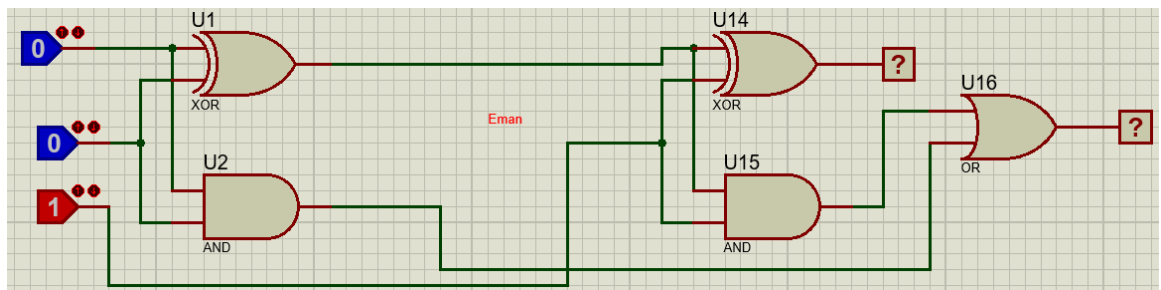
3) Build the above circuit using universal gates.



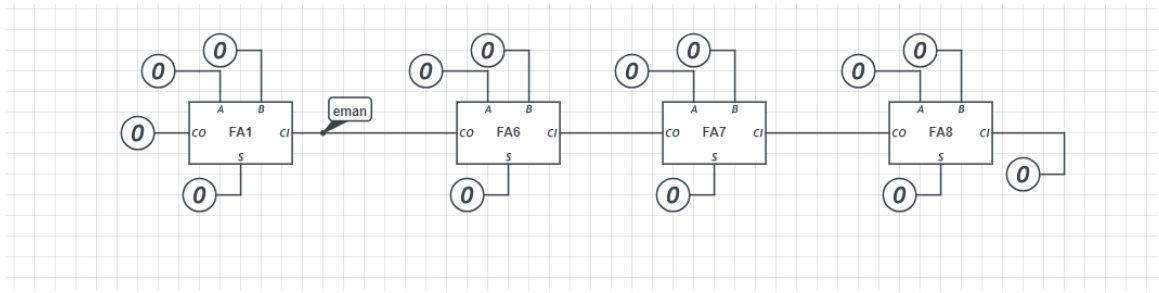
4) Build a full adder using basic gates.



5) Build a full adder using half adder and another gate.



6) Build a 4-bit adder using a full adder



7) Build a 4-bit subtractor using basic gates.

