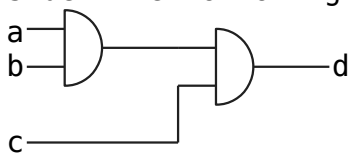
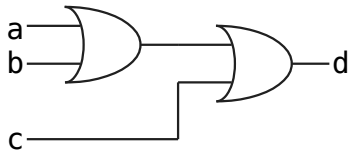
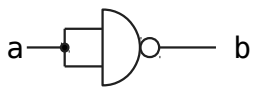
digital circuits session number four 2023

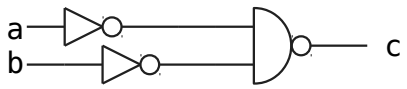
task number one

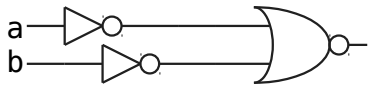
consider the following circuits









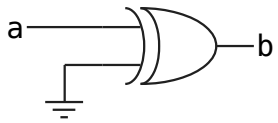


try to write the truth table which might get regarded as representing the

relationship between the output and the inputs of each of the above circuits

task number two

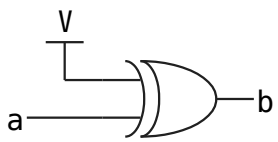
consider the following circuit



how the output in terms of input might look like?

task number three

consider the following circuit



how the output in terms of input might look like?

task number four

consider the following equation

$c = \overline{a}.b + a.b$

the variable c might get regarded as equivelent to what?

task number five

consider the following equation

$c = \overline{a}.\overline{b} + a.\overline{b} + \overline{a}.b + a.b$

the variable c might get regarded as equivelent to what?

task number six

consider a system which might get connected through the following

- three inputs named a, b and c
- one output named d

let the relationship between the output and inputs be as follows

the output produces a logical one signal when

the input a is logical one signal

or when

the following two inputs b and c are logical one signal

try to do the following

- sketch a circuit which might represent the system
- write an equation which might get used to represent the output in terms of inputs