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Quiz-1

ICT-2103 -Digital Logic Design

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## Answer to the question no-1

a. True

b. True

c. True

d. false

e. True

## Answer to the question no-2

OR gates

## Answer to the question no-3

De Morgan's Theorm are basically two sets of rules developed from the Boolean expressions for AND, OR and NOT using two input variable A and B. These two rules allow the input variables to be negated and converted from one form of a Boolean function into an opposite form.

## De Morgan's first rules:

De Morgan's first theorem Proves that when two input variables are AND and negted they are equivalent to the OR of the Complements of the individual Variable.

Example: $\overline{A \cdot B} = \overline{A} + \overline{B}$

## De Morgan's Second Rules

De Morgan's second theorm Proves that when two input variable are OR and negated they are equividual to the AND of the complements of the individual variable.

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

## Answer to the question no — 4

Bubble pushing is a technique to apply De Morgan's theorm directly to the logic diagram.

1. Change the logic gate
2. Add bubbles to the input and output where there were ~~on~~ none and remove the original bubbles.

Example: