

WORKSHEET – 53
TOPIC – LOGIC GATES & COMBINATIONAL CIRCUITS

SUBJECT: COMPUTER APPLICATION
F.M.: 15

CLASS: XII
DATE: 30.01.2021

➤ Choose the correct option:

(1X15=15)

1) The following symbol is of:



- (a) NOT (b) XOR (c) NAND (d) XNOR

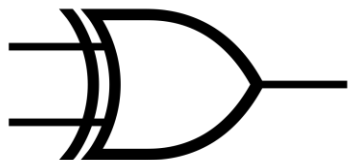
2) $\overline{A}B + A\overline{B}$ may also be represented as:

- (a) $A \oplus B$ (b) $\overline{A \oplus B}$ (c) $A \cdot B$ (d) $A + B$

3) How many NAND gate(s) are required to form a XOR gate? :

- (a) 1 (b) 2 (c) 4 (d) 5

4) The following symbol is of:



- (a) NOT (b) XOR (c) NAND (d) XNOR

5) How many NAND gate(s) are required to form a XNOR gate? :

- (a) 3 (b) 6 (c) 9 (d) 12

6) $\overline{A} \overline{B} + AB$ may also be represented as:

- (a) $A \oplus B$ (b) $\overline{A \oplus B}$ (c) $A \cdot B$ (d) $A + B$

7) How many NOR gate(s) are required to form a XNOR gate? :

- (a) 5 (b) 6 (c) 7 (d) 8

8) The minimum number of inputs required for XOR is:

- (a) 3 (b) 2 (c) 1 (d) None of these

9) The minimum number of inputs required for XNOR is:

- (a) 4 (b) 3 (c) 2 (d) 1

10) $A \oplus B$ may also be represented as::

- (a) $\overline{A}B + A\overline{B}$ (b) $A \cdot B$ (c) $A + B$ (d) $\overline{A} \overline{B} + AB$

11) NAND gate is called an:

- (a) Uniform Gate (b) Universal Gate (c) Unilateral Gate (d) Unidigital Gate

12) $\overline{A \oplus B}$ may also be represented as:

- (a) $\overline{A}B + A\overline{B}$ (b) $A \cdot B$ (c) $A + B$ (d) $\overline{A} \overline{B} + AB$

13) How many complements on an expression don't change its value?:

- (a) 1 (b) 2 (c) 3 (d) None of these

14) How many NOR gate(s) are required to form a XOR gate? :

- (a) 3 (b) 6 (c) 9 (d) 12

15) All types of logic gates can be formed by suitable combinations of _____ gates only:

- (a) NOT (b) AND (c) NOR (d) XOR

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