ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET – 3

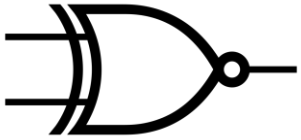
TOPIC – LOGIC GATES & COMBINATIONAL CIRCUITS

SUBJECT: COMPUTER APPLICATION **CLASS: XII**

F.M.: 15 **DATE: 05.05.2020**

➢ **Choose the correct option:** **(1X15=15)**

1) The following symbol is of:



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

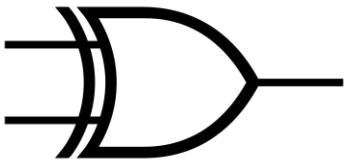
2) $\overline{A}B + A\overline{B}$ may also be represented as:

(a) $A \oplus B$ (b) $\overline{A \oplus B}$ (c) A . 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 . 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 . 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 . 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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