ANSWER KEY – 3
TOPIC – LOGIC GATES & COMBINATIONAL CIRCUITS

SUBJECT: COMPUTER APPLICATION   **CLASS: XII**
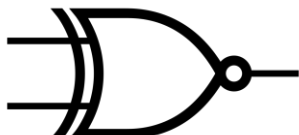**F.M.: 15**   **DATE: 05.05.2020**

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

1) The following symbol is of:

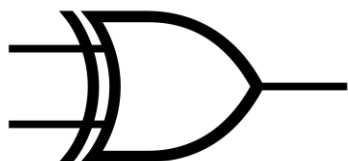(a) NOT   (b) XOR   (c) NAND   **(d) XNOR**

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

(a) A ⊕ 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 ⊕ 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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