ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET – 1
TOPIC – LOGIC GATES & COMBINATIONAL CIRCUITS

SUBJECT: COMA **CLASS: XII**

F.M.: 15 **DATE: 02.05.2020**

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

1) Which of the following is a basic logic gate? :
(a)NOT (b) NOR (c) NAND (d) XOR

2) Which of the following is an Universal gate?:
(a)NOT (b) AND (c) NAND (d) XOR

3) Which of the following is an Exclusive gate? :
(a)NOT (b) AND (c) NAND (d) XOR

4) Which of the following is true for NAND gate? :
(a) 1 NAND 1 = 0 (b) 1 NAND 1=1 (c) 0 NAND 0=0 (d) both (b) & (c)

5) Which of the following is true for AND gate? :
(a) 1.1 = 0 (b) 1.1=1 (c) 0.0=0 (d) both (b) & (c)

6) Which gate may be termed as inverter? :
(a)NOT (b) AND (c) NAND (d) XOR

7) What is the output for $\overline{1+0}$? :
(a) 1 (b) 0 (c) 10 (d) None of these

8) What is the output for $\overline{1.0}$? :
(a) 1 (b) 0 (c) 10 (d) None of these

9) What is the output for $\overline{1}$? :
(a) 1 (b) 0 (c) 10 (d) None of these

10) Which gate is the logical complement of XOR? :
(a)NOT (b) NOR (c) NAND (d) XNOR

11) Which gate is the logical complement of OR? :
(a) NOT (b) NOR (c) NAND (d) XNOR

12) Which gate works with one input? :
(a) NOT (b) NOR (c) NAND (d) XNOR

13) How many states are possible with 2 inputs? :
(a) 1 (b) 2 (c) 3 (d) 4

14) A logic gate has how many outputs? :
(a) 0 (b) 1 (c) 2 (d) 3

15) The complement of the AND gate is called:
(a) NOT (b) NOR (c) NAND (d) XNOR

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