ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian Minority Institution

WORKSHEET - 23

Topic – SOP and POS

Subject: COMPUTER SCIENCE   **Class - 11**   **F.M:15**

Chapter: Boolean Algebra   **Date: 17/08/2020**

Choose the correct answer for each question: [5 X 1 = 15]

1. The terms in SOP are called _____
   a) max terms
   b) min terms
   c) mid terms
   d) sum terms

2. A sum of products expression is a product term (min term) or several min terms ANDed together.
   a) True
   b) False

3. Which of the following is an incorrect SOP expression?
   a) x+x.y
   b) (x+y)(x+z)
   c) x
   d) x+y

4. The corresponding min term when x=0, y=0 and z=1.
   a) x.y.z'
   b) X'+Y'+Z
   c) X+Y+Z'
   d) x'.y'.z

5. The expression A+BC is the reduced form of _____
   a) AB+BC
   b) (A+B)(A+C)
   c) (A+C)B
   d) (A+B)C

6. The number of min terms for an expression comprising of 3 variables?
   a) 8
   b) 3
   c) 0
   d) 1

7. The terms in POS are called _____
   a) max terms
   b) min terms

c) mid terms

d) sum terms

8. Which operation is shown in the following expression: (X+Y').(X+Z).(Z'+Y')

a) NOR

b) ExOR

c) SOP

d) POS

9. The expression Y=AB+BC+AC shows the _____ operation.

a) EX-OR

b) SOP

c) POS

d) NOR

10. A product term containing all K variables of the function in either complemented or uncomplemented form is called a _____

a) Minterm

b) Maxterm

c) Midterm

d) $\sum$ term

11. The expression Y=(A+B)(B+C)(C+A) shows the _____ operation.

a) AND

b) POS

c) SOP

d) NAND

12. Canonical form is a unique way of representing _____

a) SOP

b) Minterm

c) Boolean Expressions

d) POS

13. There are _____ maxterms for 3 variables (a, b, c).

a) 0

b) 2

c) 8

d) 1

14. A variable on its own or in its complemented form is known as a _____

a) Product Term

b) Literal

c) Sum Term

d) Word

15. The canonical sum of product form of the function y(A,B) = A + B is _____

a) AB + BB + A'A

b) AB + AB' + A'B

c) BA + BA' + A'B'

d) AB' + A'B + A'B'

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