MANAV RACHNA
vidyanatariksha
MANAV RACHNA UNIVERSITY
FORMERLY MANAV RACHNA COLLEGE OF ENGINEERING
NAAC ACCREDITED 'A' GRADE INSTITUTION
Declared as State Private University under section 2f of the UGC act, 1956

DEPARTMENT OF ELECTRONICS AND COMMUNICAION ENGINEERING

Subject: DIGITAL ELECTRONICS& MICROCONTROLLERS (ECH308B-T/P)

Branch: CSE

Course: B.Tech 5th SEM

TUTORIAL -3: Duality, SOP and POS

CO1: A thorough understanding of the fundamental concepts and techniques used in Digital Electronics and Microcontrollers.

CO2.Convert the different type of codes and number systems which are used in digital communication computer systems.

1. What is dual of A + [B + (AC)] + D.
2. Construct truth table for the given min terms (m_3+m_6)
3. The function of Boolean variables X, Y and Z is expressed in terms of the min-terms as F(X, Y, Z) = ∑(1, 2, 5, 6, 7). Find the product of sums expression.
4. Simplify [1 + LM + LM' + L'M].[(L + M') (L'M) + L'M'(L + M)]
5. Simplify ABC+ABC'+AB'C+AB'C'+A'BC+A'BC'+A'B'C'+A'B'C
6. Minimize the Boolean function
   f(A,B)=∑ m(0,2,3)
7. Simplify A'BC+B'CD+AC+A'B'CD'
8. Prove AB+BC+CA=A'B'+B'C'+C'A'