AMIRAJ
COLLEGE OF ENGINEERING & TECHNOLOGY

DEPARTMENT : ELECTRICAL
SEMESTER: 3RD
SUBJECT NAME: ANALOG AND DIGITAL ELECTRONICS
SUBJECT CODE : 3130907
FACULTY NAME: SUNIL PATEL

ASSIGNMENT: 5 SEQUENTIAL CIRCUIT AND SYSTEM

1. How to generate 8x1 MUX using 4x1 MUX.

2. Implement the following Boolean functions with a multiplexer and Decoder. F(w, x, y, z) = Σ (2, 3, 5, 6, 11, 14, 15)

3. Design a combinational logic circuit whose output is high only when majority of inputs (A,B,C,D) ARE LOW

4. Implement the following function with NAND and NOR Gate. F(a,b,c) = Σ (0,6)

5. Simplify the following Boolean functions to a minimum numbers of literals.
   1. x + x'y 2. x (x'+y) 3. x'y'z + x'yz + xy' 4. xy + x'z +yz