

## LabWork 5

Q1.

**A majority function is generated in a combinational circuit when the output is equal to 1 if the input variables have more 1's than 0's. The output is 0 otherwise. Design a three-input majority function.**

List the truth table

Find Boolean Function by using K-map

Design Circuit and compare with Truth table

Q.2

**Design a combinational circuit with three inputs  $x, y, z$  and three outputs  $A, B, C$ . When the binary input is 0, 1, 2, or 3, the binary output is one greater than the input. When the binary input is 4, 5, 6, or 7, the binary output is one less than the input.**

List the truth table

Find Boolean Function by using K-map

Design Circuit and compare with Truth table