

North South University, Dhaka, Bangladesh
Dept. of Electrical and Computer Engineering
(Digital Logic Design)

Quiz

Time: 15 minutes

Total Marks: 15

1. Using Karnaugh Map obtain the minimized Boolean expression (in terms of sum of products, i.e. **SOP**) for function F , where **[CO2; 9]**

$$F(W, X, Y, Z) = \sum m(0, 2, 5, 7, 8, 9, 10, 12, 13, 15)$$

For your answer **properly indicate the groups and corresponding terms.**

2. Expression for a function F is given as follows:

[CO1; 3+3]

$$F(A, B, C) = \sum m(1, 4, 5, 6, 7)$$

- a) List the truth table for function F .
- b) Express the **complement** of function F (i.e. F') in **sum-of-minterms** form.