

DIGITAL DESIGN(DD)  
INSTR F243/EEE F215 /ECE F215 /CS F215  
TUTORIAL # 2

Q1. Reduce the below Boolean expression using K-map.

$$F(A, B, C) = AB + A\overline{B}C + \overline{A}B\overline{C} + B\overline{C} + AC$$

Q.2 Find the PI's, EPI's and the minimal SOP expressions for the following

(i)  $F(A, B, C, D) = \sum m(1, 2, 3, 4, 5, 6, 7, 12, 13, 15)$

(ii)  $F(A, B, C, D) = \sum m(1, 4, 5, 6, 7, 11, 12, 13, 15) + d(3, 10, 14)$

Q.3 Convert the below expression into canonical forms

$$f(A, B, C) = (A + C)(B + \overline{C})(\overline{A} + C)$$