

Name:

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COE 202, Term 112  
Digital Logic Design

Quiz# 3

Date: Saturday, March 10

**Q1.** Simplify the following Boolean functions **F** together with the don't care conditions **d**, into minimal sum-of-products expression. Identify all the prime implicants and the essential prime implicants.

$$F(A, B, C, D) = \Sigma m(2, 3, 5, 7, 10, 12, 13), d(A, B, C, D) = \Sigma m(0, 1, 5, 8, 9, 15)$$

		CD			
		00	01	11	10
AB	00	X	X	1	1
	01	0	1	1	0
	11	1	1	X	0
	10	X	X	0	1