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GATE QUESTION ECE 2010 Q39

Question.52

A minimized form of the function F is:

(A)
$$F = \overline{X}Y + YZ$$

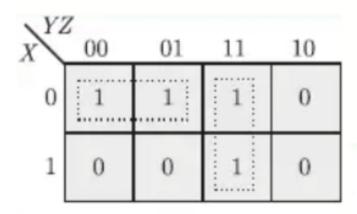
(C)
$$F = \overline{X}\overline{Y} + Y\overline{Z}$$

(B)
$$F = \overline{X}\overline{Y} + YZ$$

(D)
$$F = \overline{X}\overline{Y} + \overline{Y}Z$$

Solution.52

Function F can be minimized by grouping all 1's in the K-map as following:



$$F = \overline{X}\,\overline{Y} + YZ$$

Hence, (B) is the correct option.