GATE-EE 2011 Digital Logic Question

Q.52

The following Karnaugh map represents a function F:

		YZ				
		00	01	11	10	
X	0	1	1	1	0	F
	1	0	0	1	0	

A minimized form of the function F is:

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

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

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

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

Correct Answer

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