

Gate assignment

December 27, 2023

1. Consider the following Boolean expression

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

Which of the following Boolean expressions is/are equivalent to \bar{F} (complement of F)?

(Gate CS2021,42)

- (a) $(\bar{X} + \bar{Y} + \bar{Z})(X + \bar{Y})(Y + \bar{Z})$
- (b) $X\bar{Y} + \bar{Z}$
- (c) $(X + \bar{Z})(\bar{Y} + \bar{Z})$
- (d) $X\bar{Y} + Y\bar{Z} + \bar{X}\bar{Y}\bar{Z}$