

1. A Boolean function (F) of three variables ($x, y,$ and z) is given as ($F(X, Y, Z) = (X + Y + Z) - (X + Y + Z') \cdot (X' + Y + Z') \cdot (X'Y'Z' + X'YZ' + XYZ')$).

Which one of the following is true?

- (a) ($F(X, Y, Z) = (X + Y + Z') \cdot (X' + Y' + Z')$)
- (b) ($F(X, Y, Z) = (X + Y) \cdot (X + Y' + Z')$)
- (c) ($F(X, Y, Z) = X'Z' + YZ'$)
- (d) ($F(X, Y, Z) = X'Y'Z + XYZ$)