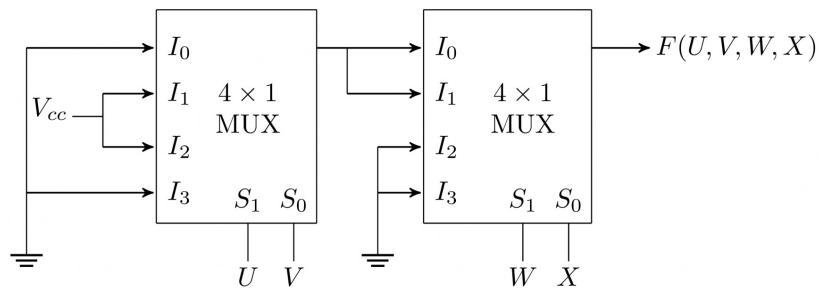


Q.31 A four-variable Boolean function is realized using 4×1 multiplexers as shown in the figure.



The minimized expression for $F(U, V, W, X)$ is

- (A) $(UV + \overline{U}\overline{V})\overline{W}$ (B) $(UV + \overline{U}\overline{V})(\overline{W}\overline{X} + \overline{W}X)$
 (C) $(U\overline{V} + \overline{U}V)\overline{W}$ (D) $(U\overline{V} + \overline{U}V)(\overline{W}\overline{X} + \overline{W}X)$