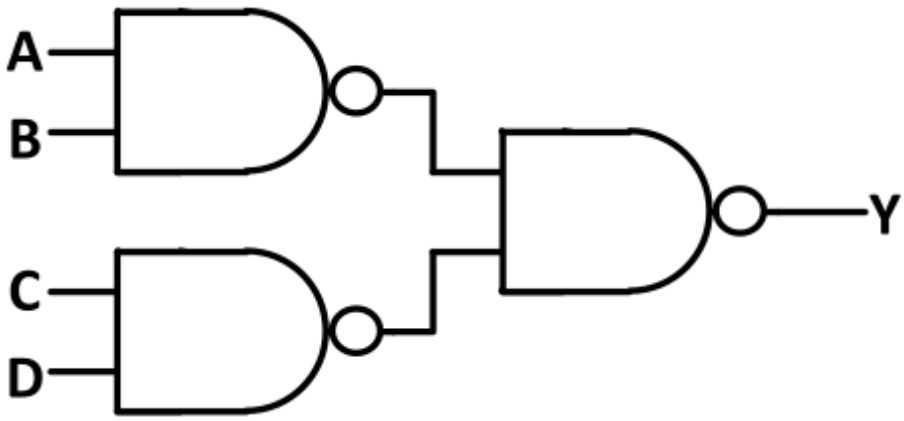
Q.14 In the logic circuit shown in the figure, Y is given by



(A) Y = ABCD (B) Y = (A+B)(C+D)
(C) Y = A + B + C + D (D) Y = AB + CD

Solution :

$$\begin{aligned} Y &= \overline{\overline{AB}\,\overline{CD}} \\ &= \overline{\overline{AB}} + \overline{\overline{CD}} \\ &= AB + CD \end{aligned}$$

Therefore option (D) is the correct answer.