

**Q4.** In a certain program, in order to stay in a loop, variable  $X$  must be in the range from 1 through 10 ( $X \geq 1$  AND  $X \leq 10$ ). In this program, which of the following is the condition of exiting the loop? Here, “AND” and “OR” are the logical product and logical sum operations respectively. In addition, comparison operators  $<$ ,  $\leq$ ,  $>$ , and  $\geq$  are less than, less than or equal to, greater than, and greater than or equal to, respectively.

a)  $X < 1$  AND  $X > 10$

b)  $X \geq 1$  OR  $X \leq 10$

c)  $X \leq 1$  OR  $X \geq 10$

d)  $X < 1$  OR  $X > 10$