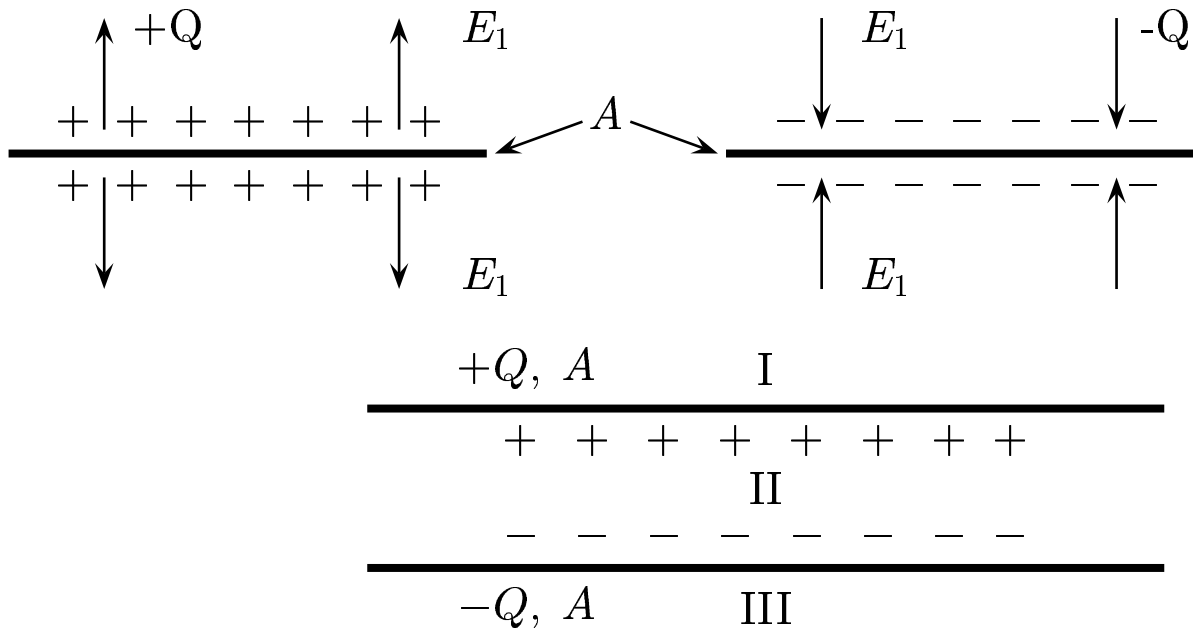


Given 1-plate pattern, $E_1 = \frac{Q}{2 \epsilon_0 A}$:



Find electric fields E of parallel plate system in I, II and III.

- A) $E_I = 0$ and $E_{II} = 2 E_1 \downarrow$ and $E_{III} = 0$.
 B) $E_I = E_1 \uparrow$ and $E_{II} = 2 E_1 \uparrow$ and $E_{III} = E_1 \downarrow$.
 C) $E_I = E_1 \uparrow$ and $E_{II} = E_1 \uparrow$ and $E_{III} = E_1 \downarrow$.

Apply the superposition principle

	Top plate	Bottom plate	Both plates
E_I	$+E_1$	$-E_1$	0
E_{II}	$-E_1$	$-E_1$	$-2 E_1$
E_{III}	$-E_1$	$+E_1$	0

Answer **A**.