*Boundary conditions at a dielectric-dielectric interface.* Consider a boundary surface between two dielectric media, with relative permittivities $\varepsilon_{r1} = 4$ and $\varepsilon_{r2} = 2$, respectively. Assuming that there is no surface charge on the boundary, which of the cases shown in Fig. Q2.3 represent possible electric field intensity vectors on the two sides of the boundary?

(A) Case (a) only.
(B) Case (b) only.
(C) Case (c) only.
(D) Case (d) only.
(E) More than one case.
(F) None of the cases.
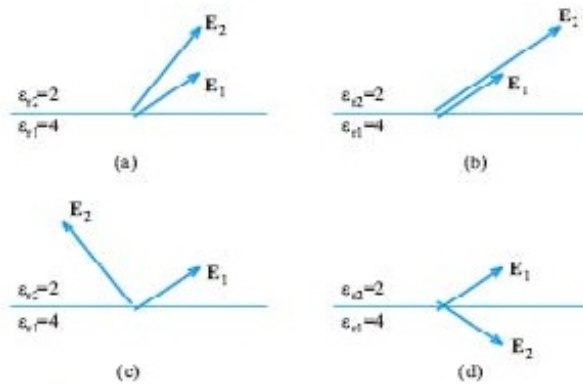
Figure Q2.3 Four offered combinations of electric field intensity vectors on two sides of a dielectric-dielectric interface ($\varepsilon_{r1} = 2\varepsilon_{r2}$), for Question 2.7.

Solution: (A)
Answer: (A)