Two parallel strips with equal surface charge densities. Two parallel, infinite long strips of width a are uniformly charged with equal charge densities $\rho_s(\rho_s > 0)$, and a cross section of the structure is shown in Fig.Q1.5. The ambient medium is air, and the separation between strips is d. The resultant electric field intensity vector $\mathbf{E}$ at the point M in the figure

(A) has a positive $x-$component only.
(B) has a negative $x-$component only.
(C) has a positive $z-$component only.
(D) has a negative $z-$component only.
(E) is zero.

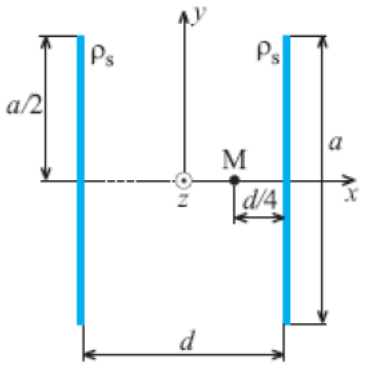

Figure Q1.5 Cross section of two parallel, infinitely long strips with equal surface charge densities; for Question 1.5.

Solution: (B)
Answer: (B)