Zero potential and/or field at a point. Consider an electrostatic field in a region of space and the following two statements: (a) If the electric scalar potential at a point in the region is zero, then the electric field vector at that point must be zero as well; (b) If the electric field vector at a point is zero, then the potential at the same point must be zero. Which of the statements is true?

(A) Statement (a) only.
(B) Statement (b) only.
(C) Both statements.
(D) None of the statements.

Solution: (D)
Answer: (D)