Derivatives and Integrals of Vector Functions

Question

If $\vec{u}$ and $\vec{v}$ are differentiable vector functions and f is a differentiable scalar function, which of the following formulas is meaningless?

A. $f'(t)\vec{u}(t) + f(t)\vec{u}\,'(t)$

B. $\vec{u}\,'(t) \times \vec{v}(t) + \vec{u}(t) \times \vec{v}\,'(t)$

C. $\vec{u}(t) \cdot \int \vec{v}(t)dt$

D. $f(t) + \int (\vec{u}(t) \times \vec{v}(t))dt$

E. $f(t) + \int (\vec{u}(t) \cdot \vec{v}(t))dt$