

- 19** An alpha particle and a proton are moving perpendicularly to a uniform electric field. The speed of alpha particle is 4.0 times the speed of proton.

Determine the ratio $\frac{\text{component of speed of alpha particle parallel to electric field}}{\text{component of speed of proton parallel to electric field}}$ after time t . Ignore the effects due to gravitation field.

A 0.5

B 1.0

C 1.5

D 2.0