

- 5 An object is projected from horizontal ground at a velocity of magnitude  $u$  and angle  $\theta$  to the horizontal. It hits the ground at a time  $t$  after it is projected. Assume air resistance is negligible.



Which statement does **not** describe the motion of this object?

- A The horizontal component of the object's velocity is constant and has the value  $ucos\theta$ .
- B The horizontal distance travelled by the object is  $tucos\theta$ .
- C The time taken for the object to reach maximum height is  $\frac{t}{2}$ .
- D The vertical component of the object's velocity is constant and has the value  $usin\theta$ .