4 A ball of mass m is projected vertically upwards. An air resistance F acts on the ball at all times.

Which of the following equations would apply to the ball as it is travelling upwards?

$\boxtimes$ **A** $mg - F = 0$

$\boxtimes$ **B** $mg + F = 0$

$\boxtimes$ **C** $mg - F = ma$

$\boxtimes$ **D** $mg + F = ma$

(Total for Question 4 = 1 mark)