

- 4** A tractor of mass 1000 kg pulls a trailer of mass 1000 kg via a tow-bar. The total resistance to motion has a constant value of 4000 N. One fifth of this resistance acts on the trailer. If the maximum breaking force of the tow-bar is 3000N, what is maximum acceleration of the tractor and trailer?

**A**      $2.2 \text{ m s}^{-2}$      **B**      $3.0 \text{ m s}^{-2}$      **C**      $3.8 \text{ m s}^{-2}$      **D**      $7.0 \text{ m s}^{-2}$