**28** Light quanta each of energy $3.5 \times 10^{-19}$ J fall on the cathode of a photocell. The current through the cell is just reduced to zero by applying a reverse voltage to make the cathode 0.25 V positive with respect to the anode.

The minimum energy required to remove an electron from the cathode is

**A** $2.9 \times 10^{-19}$ J

**B** $3.1 \times 10^{-19}$ J

**C** $3.5 \times 10^{-19}$ J

**D** $3.9 \times 10^{-19}$ J