28. A 25 mL solution containing C2O42- ions was titrated with KMnO<sub>4</sub> in acidic medium as follow:

$$5C_2O_4^{2-} + 2MnO_4^{-} + 16H^+ \rightarrow 2Mn^{2+} + 8H_2O + 10CO_2$$

Calculate the concentration of C2O42ions if the titration required 30.50 mL of 1.25 M KMnO<sub>4</sub> solution.

- A. 3.81 M
- C. 4.23 M
- B. 3.32 M
- D. 4.78 M
- 29. The reaction between sulphuric acid, H<sub>2</sub>SO<sub>4</sub> and barium hydroxide, Ba(OH)<sub>2</sub> is shown below

$$H_2SO_4 + Ba(OH)_2 \rightarrow BaSO_4 + 2H_2O$$

Calculate the mass of Ba(OH)2 required to produce 4.35g BaSO<sub>4</sub>, if the percentage yield of the reaction is 85%.

- A. 3.75 g
- C. 3.48 g
- B. 6.97 g D. 5.12 g