(Concentrations of solutions)

Q1. (2018)

(volume =) $\frac{250}{1000}$ or ¼

or 0.25 (dm^3)

or

(mass per cm^3 =) $\frac{40}{1000}$ (g)

or 0.04 (g)

($\frac{250}{1000}$ × 40 =) 10 (g)

Q2.a) (2020)

$\frac{0.06}{25(.0)}$ × 100

= 0.24 (%)

Q2.b) (2020)

(pipette) measures volume more accurately

or

(pipette has a) smaller (percentage) uncertainty

Q3.a) (2023)

trial 3

Q3.b) (2023)

any **one** from:

- (hydrochloric acid) not added drop by drop
- did not swirl
- did not rinse apparatus (after previous trial)
- did not use a white tile
- misread pipette / burette

Q3.c) (2023)

$\left(25.0\ \text{cm}^3 = \frac{25.0}{1000} =\right)\ 0.025\ (\text{dm}^3)$

(mass =) 0.025×4.00

$= 0.1\ (\text{g})$

alternative approach:

$\left(\text{concentration} = \frac{4.00}{1000} =\right)$
$0.004\ (\text{g/cm}^3)$ (1)

(mass =) 0.004×25.0 (1)

$= 0.1\ (\text{g})$ (1)