

(Reversible reactions and dynamic equilibrium)

Q1. (2018)

reversible

Q2.(2019)

(equation contains a) $\rightleftharpoons$
(symbol)

Q3.(2019)

exothermic

Q4.(2020)

(the reaction is) reversible

Q5.a)(2021)

(equation contains the symbol)
 $\rightleftharpoons$

Q5.b)(2021)

the mass of each substance
does not change

the rates of the forward reaction
and reverse reaction are equal

Q5.c)(2021)

the mixture will have become a
paler purple

Q6.a)(2022)

24.5 (g)

Q6.b)(2022)

water vapour was produced

**(so) water (vapour) escaped
(from the tube)**

Q6.c)(2022)

(so that) the reaction was
complete

Q6.d)(2022)

$$\begin{aligned} &(\text{energy} =) \\ &\frac{2.00}{238} \times 88.1 \end{aligned}$$

$$= 0.740336134 \text{ (kJ)}$$

$$= 0.740 \text{ (kJ)}$$

Q6.e)(2022)

endothermic (reaction)

Q7.a)(2023)

water (vapour) is colourless

(calcium hydroxide and calcium
oxide are) both white (powders /
solids)

or

there is no change in the
appearance of the powder /
solids

Q7.b)(2023)

the stopper would be pushed
out

Q7.c)(2023)

the mass of the empty test tube

Q7.d)(2023)

5 minutes

Q7.e)(2023)

$$(\text{mass}) = 2.00 - 1.51$$

$$= 0.49 \text{ (g)}$$

Q7.f)(2023)

$$5.90 \text{ kJ}$$

Q7.g)(2023)

endothermic

Q8.(2024)

combustion

reversible

Q9.(2024)

water molecules break down
and reform at the same rate