Revision Sheet

IGCSE Chemistry · Unit 6 Chemical reactions

11 vocabulary items · 35 marks of exam questions (13 questions)

Part 1 · Vocabulary review answer key. Section A wants the exact English spelling.

Question	Answer	Marks
1	rate of reaction	1
2	forward reaction	1
3	collision theory	1
4	catalyst	1
5	equilibrium	1
6	Contact process	1
7	iron	1
8	sulfur	1
9	oxidation number	1
10	oxidising agent	1
11	reducing agent	1

Multiple Choice Answers

Q12: A
Q13: D
Q14: B
Q15: D

Multiple Choice Answers

Q16: D
Q17: C
Q18: C
Q19: C

Multiple Choice Answers

Q20: C
Q21: D
Q22: A

23(a)	*test:* relights **AND** *observations:* a glowing splint
23(b)(i)	lower gradient (at t2)
23(b)(ii)	**M1** concentration (of H_2O_2 particles) decreases (1) **M2** frequency of collisions between particles decreases (1)
23(b)(iii)	**M1** steeper curve which does not cross original curve and levels off before the original curve (1) **M2** finishes at same volume (1)
23(c)	**M1** mol $O_2 = 72 / 24000 = 0.003(00)$ (1) **M2** mol $H_2O_2 = M1 \times 2 = 0.002 \times 2 = 0.006(00)$ (1) **M3** conc $H_2O_2 = M2 \times 1000 / 20 = 0.006 \times 1000 / 20 = 0.3(00)$ (1) **M4** M_r $H_2O_2 = 34$ (1) **M5** $= M4 \times M3 = 34 \times 0.3 = 10.2$ (g / dm^3) (1)
23(d)	any transition metal oxide

24(a)	**M1** the rate of forward reaction equals (the rate of the) reverse reaction (1) **M2** the concentrations of reactants and products are no longer changing (1)
24(b)(i)	**M1** concentration decreases (1) **M2** position of equilibrium shifts to left **AND** fewer moles of gas on left hand side (1)
24(b)(ii)	**M1** concentration increases (1) **M2** position of equilibrium shifts to the right **AND** forward reaction is endothermic (1)
24(b)(iii)	**M1** no change (1) **M2** catalysts do not affect position of equilibrium (1)
24(c)(i)	carbon dioxide
24(c)(ii)	**M1** greenhouse gases absorb thermal energy (from the Earth) (1) **M2 and M3** one mark each for any two of: • energy (from the sun) absorbed by Earth's surface • Earth emits or reflects thermal energy • (greenhouse gases) reduces or stops thermal energy loss (into space) • increasing in amount of greenhouse gas results in a higher atmospheric temperature