Edexcel AS Chemistry Exam practice answers

3: Redox

1 (a) Disproportionation happens when an element in a single species; (✓) is simultaneously oxidised and reduced (✓)

 (b) A (✓)

 (c) C (✓)

 (d) One chlorine species (Cl−) has been oxidised and one (ClO−) reduced; (✓) so a single species is not simultaneously oxidised and reduced, it is not disproportionation (✓)

2 (a) (i) H2O2(aq) + 2H+(aq) + 2e− → 2H2O

species (✓) balance (✓)

 (ii) S(s) + 2H+(aq) + 2e− → H2S(aq)

 species(✓) balance (✓)

 (b) H2O2(aq) + H2S(aq) → 2H2O(l) + S(s)

 species(✓) balance (✓)

 (c) 2HBr + H2SO4 → Br2 + 2H2O + SO2

 species(✓) balance (✓)

 (d) B (✓)