



ASSESSMENT and
QUALIFICATIONS
ALLIANCE

Mark scheme
March 2003

GCSE

Chemistry (Modular)

Module 21

Aqueous and Organic Chemistry : Foundation Tier

Question	Key
One	1 – carbon dioxide 2 – carbon monoxide 3 – carbon 4 – hydrogen
Two	1 – weak acid 2 – strong alkali 3 – weak alkali 4 – strong acid
Three	1 – carbon monoxide 2 – chlorine 3 – calcium sulphate 4 – ammonium nitrate
Four	1 – zinc added to dilute sulphuric acid 2 – unreacted zinc removed by filtering 3 – heated to evaporate some water 4 – solid zinc sulphate crystallises out
Five	1 – chlorine 2 – nitric acid 3 – magnesium carbonate 4 – ethanol
Six	K – ammonia is a base because it can accept a proton N – the H^+ (aq) ion is a proton
Seven	Q – 100 g water will dissolve 0.3 g more carbon dioxide at $0^\circ C$ than at $60^\circ C$ S – carbon dioxide dissolves in water to form carbonated water
Eight	8.1 – D, 8.2 – D, 8.3 – B, 8.4 – A
Nine	9.1 – D, 9.2 – D, 9.3 – D, 9.4 – C
Ten	10.1 – D, 10.2 – B, 10.3 – B, 10.4 – A

Aqueous and Organic Chemistry : Higher Tier

Question	Key
One	1 – chlorine 2 – nitric acid 3 – magnesium carbonate 4 – ethanol
Two	1 – ethanoic acid 2 – hydrogen chloride 3 – sodium citrate 4 – polyvinylchloride
Three	Q – 100 g water will dissolve 0.3 g more carbon dioxide at 0 °C than at 60 °C S – carbon dioxide dissolves in water to form carbonated water
Four	n-butane has the higher boiling point they have the same chemical formula
Five	5.1 – D, 5.2 – D, 5.3 – B, 5.4 – A
Six	6.1 – D, 6.2 – D, 6.3 – D, 6.4 – C
Seven	7.1 – D, 7.2 – B, 7.3 – B, 7.4 – A
Eight	8.1 – B, 8.2 – D, 8.3 – A, 8.4 – D
Nine	9.1 – C, 9.2 – A, 9.3 – B, 9.4 – D
Ten	10.1 – C, 10.2 – D, 10.3, – C, 10.4 – C