

2003 Chemistry Intermediate 1

Marking scheme

Section A

1.	D	11.	A
2.	D	12.	A
3.	C	13.	B
4.	D	14.	D
5.	B	15.	D
6.	A	16.	B
7.	B	17.	C
8.	C	18.	C
9.	A	19.	D
10.	B	20.	A

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Section B

1. (a) coal/natural gas/north sea gas/peat/gas 1 mark
- (b) (i) distillation (do not need *fractional*) 1 mark
- (ii) Petrol is flammable/burns/catches fire easily 1 mark
2. (a) numbers should read - $C_3H_8O_5NP$ 1 mark
(numbers should be on or below line for mark - any higher lose $\frac{1}{2}$)
- (b) use up nutrients in the soil
or
deprives plants of space/light/water/nutrients 1 mark
- (c) fungicide 1 mark
3. (a) Match/compare colour to the colour on the pH chart 1 mark
- (b) 7 1 mark
- (c) dissolve (in water)/add to water
or
wet the pH paper 1 mark
4. (a) Malachite – $\frac{1}{2}$ mark if copper carbonate 1 mark
- (b) 6 1 mark
5. (a) going clockwise from top RHS, $\frac{1}{2}$ mark for each label - voltmeter; tin case;
paste; copper 2 marks
- (b) (i) to complete the circuit
or
to allow the paste to conduct
or
to carry the charge 1 mark
- (ii) Add iodine. ($\frac{1}{2}$) The iodine turns blue/black ($\frac{1}{2}$) 1 mark
6. (a) Polymerisation 1 mark
- (b) Put same volume ($\frac{1}{2}$) of hot and cold water in two beakers ($\frac{1}{2}$) add detergent
capsules to each beaker ($\frac{1}{2}$) time how long to dissolve/detergent to appear in
each beaker ($\frac{1}{2}$) 2 marks

7. (a) Prevents air/oxygen/water reacting/touching metal 1 mark
- (b) galvanising 1 mark
- (c) (i) rust indicator 1 mark
- (ii) copper yes
tin yes
zinc no 1 mark
8. (a) A drug 1 mark
- (b) (i) x and y labels ($\frac{1}{2}$)
scale on y correct ($\frac{1}{2}$)
points plotted ($\frac{1}{2}$)
bars drawn ($\frac{1}{2}$) 2 marks
- minus $\frac{1}{2}$ mark if line graph
- (ii) $(2 \times 80) + 40 = 200$ 1 mark
 $[80 + 40] = 120$ for $\frac{1}{2}$ mark
9. (a) (i) carbon dioxide + water \longrightarrow oxygen + glucose 1 mark
- (ii) chlorophyll 1 mark
- (b) (i) increased combustion of fuels or cutting down of forests 1 mark
- (ii) $390 - 420$ 1 mark
10. (a) to place the three metals in order of reactivity 1 mark
- (b) size of pieces of metal
or
mass of metal
or
temperature of acid
or
concentration of acid 1 mark
- (c) magnesium chloride 1 mark

11. (a) To improve appearance (colouring)
or
to preserve
or
to add vitamins/minerals
or
aid nutrition
or
to improve flavour 1 mark
- (b) 2.5 1 mark
- (c) breaks up oil and grease into droplets
or
helps oil and grease mix/dissolve in water 1 mark
- (d) phosphorous/P 1 mark
12. (a) SO_2 1 mark
- (b) approx 20 (19 – 22) 1 mark
- (c) acid rain 1 mark

[END OF MARKING INSTRUCTIONS]