Marking Scheme

1.

Question Number									
FT	HT	Sub-section			Mark	Answer	Accept	Neutral answer	Do not accept
4		(a)			1	magnesium sulfate + copper	magnesium sulfate *solution* / copper *solid* / copper *metal*		
		(b)			1	displacement			
		(c)			2	equal to 80.6 (1) (in a chemical reaction) atoms are not created or destroyed / (in a chemical reaction) atoms are re-arranged / nothing has entered / left the beaker (1) [Marks linked (unless **no** box ticked) i.e. second mark cannot be awarded if first is not]		'it is a sealed container'	
		(d)			1	sodium magnesium copper	Na Mg Cu		

2.

Question Number									
FT	HT	Sub-section			Mark	Answer	Accept	Neutral answer	Do not accept
	7	(a)			2	reaction takes place since iron is higher in the series / more reactive than copper (1) brown solid formed / solution becomes colourless / decolourises (1)			
		(b)			2	reaction takes place since magnesium is higher in the series than hydrogen (1) effervescence / bubbling / temperature rise / exothermic (1)	magnesium disappears		
		(c)			2	no reaction takes place (1) aluminium is higher in the series / more reactive than carbon (1)	no displacement		

3.

Question Number									
FT	HT	Sub-section			Mark	Answer	Accept	Neutral answer	Do not accept
8	3	(a)			3	copper chloride (1) carbon dioxide (1) sodium hydroxide (1)	$CuCl_2$ CO_2 NaOH		
		(b)			1	2			

4.

Question Number									
FT	HT	Sub-section			Mark	Answer	Accept	Neutral answer	Do not accept
8	2	(a)	(i)		1	battery acid			
			(ii)		1	blood			
			(iii)		1	**pure** water			
		(b)			3	**A** copper carbonate (1) **B** copper oxide (1) **C** sodium hydroxide (1)	$CuCO_3$ CuO NaOH		

5.

Question Number									
FT	HT	Sub-section			Mark	Answer	Accept	Neutral answer	Do not accept
4		*(a)*	(i)		1	lemon juice			
			(ii)		1	saliva			
		(b)	(i)		2	magnesium chloride (1) water (1)	formulae		
			(ii)		2	carbon dioxide (1) gas must be correct to award test mark turns limewater milky (1)			