
SCIENCE

1113/02

Paper 2

April 2016

MARK SCHEME

Maximum Mark: 50

IMPORTANT NOTICE

Mark Schemes have been issued on the basis of **one** copy per Assistant examiner and two copies per Team Leader.

This document consists of **8** printed pages.

Question number			1	CSS00431		
Part	CF	Skill	Mark	Answer	Further Information	
	8PI6	A	2	A red B no light		
Total			2			

Question number			2	S_009_051_A		
Part	CF	Skill	Mark	Answer	Further Information	
(a) (i)	9Bp3	A	1	nectar / bright petals / coloured petals / large petals / scent / pollen		
(ii)	9Bp3	K	2	pollen from anther gets onto stigma		
(b) (i)	9Bp3	K	1	Any one from prevent overcrowding less competition (for light, water or nutrients)		
(ii)	9Bp3	A	2	method = wind reason = parachute / hairs / feathery	if method is incorrect = 0 marks for the question	
Total			6			

Question number			3	CSS00361		
Part	CF	Skill	Mark	Answer	Further Information	
(a) (i)	8Ep6 8Cs1	E	1	go down / decrease		
(ii)	8Cs1	K	2	move closer together particles slow down / move slower / particles have less energy		
(b) (i)	8Eo3 8Cs1	E	1	wear eye protection / gloves / don't hold the apparatus / put the apparatus in a clamp / safety screen / laboratory coat		
(ii)	8Eo3 8Cs1	E	1	(eye protection) = to prevent (hot) water going into eyes / to prevent glass going in your eyes (gloves / don't hold the apparatus / put the apparatus in a clamp / laboratory coat) = to prevent burning / prevent hot water getting to the skin	a reason linked to the safety precaution related to the experiment in the question	
Total			5			

Question number			4	CSS00425		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	8Ps2	K	1	The pitch of sound is also called its frequency.		
(b)	8Ps2	A	1	tuna		
Total			2			

Question number		5		CSS00163	
Part	CF	Skill	Mark	Answer	Further Information
(a)	7Bc2	A	1	(idea of) water loss	
(b)	7Bc2	A	2	Any two from from fungi in the air / by the wind from other rotten fruit direct contact (with other rotten fruit)	
(c)	7Bc2	A	2	Any two from (idea of) fridge is cold (idea of) limited access (to the fruits) / enclosed / spores unable to gain access no draughts	
Total			5		

Question number			6	CSS00453		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	7Cs1	K	2	<p>Liquids have no fixed shape. <input checked="" type="checkbox"/></p> <p>Liquids have no fixed volume. <input type="checkbox"/></p> <p>Liquid particles only vibrate. <input type="checkbox"/></p> <p>The particles in a liquid expand. <input type="checkbox"/></p> <p>The particles in a liquid move around. <input checked="" type="checkbox"/></p>	<p>each correct tick = 1 mark</p> <p>three ticks and two correct = 1 mark</p> <p>three ticks and one correct = 0 marks</p> <p>four or five ticks = 0 marks</p>	
(b) (i)	7Eo1 7Cs1	E	1	103		
(ii)	7Ec1 7Cs1	E	1	increases / goes up		
Total			4			

Question number			7	CSS00575		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	9Pe2	K	1	The main form of thermal (heat) energy transfer in liquids and gases is called convection .		
(b)	9Pe2	K	1	Thermal (heat) energy is transferred through a solid by conduction .		
(c)	9Pe2	K	1	Iron is a metal so it is a good conductor .		
(d)	9Pe2	K	1	insulator		
Total			4			

Question number			8	CSS00337		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	7Ec1 8Bh11	E	1	As the number of cigarettes smoked each day during pregnancy increases, the birth mass of a baby decreases .		
(b)	8Bh11	A	1	give up smoking / reduce the number of cigarettes they smoke each day		
Total			2			

Question number			9	CSS00277			
Part	CF	Skill	Mark	Answer	Further Information		
(a)	8Cp2	K	1	Na	Do not accept NA / na / Na / NA		
(b)	8Cp1	K	2	Sodium conducts electricity. <input checked="" type="checkbox"/> Sodium does not conduct heat. <input type="checkbox"/> Sodium has a low boiling point. <input type="checkbox"/> Sodium is ductile. <input checked="" type="checkbox"/> Sodium is not malleable. <input type="checkbox"/>	each correct tick = 1 mark three ticks and two correct = 1 mark three ticks and one correct = 0 marks four or five ticks = 0 marks		
(c) (i)	9Cc2	K	1	hydrogen			
(ii)	9Cp3	K	1	faster / greater / bigger / more / quicker			
Total			5				

Question number		10		CSS00444		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	7Ep4 7Pf1	E	2	force / newtons mass		
(b) (i)	7Ep5 7Pf1	E	1	the force needed to move the wooden block will be less (than with rougher surfaces)		
(ii)	7Ep5 7Pf1	E	1	(smoother surfaces have) less friction		
Total			4			

Question number		11		CSS00372		
Part	CF	Skill	Mark	Answer	Further Information	
(a) (i)	9Cc2	K	1	potassium / K sodium / Na calcium / Ca	all three in any order = 1 mark case must be correct if symbol written	
(ii)	9Cc2	K	1	hydrogen		
(b)	9Cc4	A	2	aluminium and silver nitrate <input checked="" type="checkbox"/> calcium and zinc sulfate <input checked="" type="checkbox"/> copper and sodium chloride <input type="checkbox"/> lead and iron nitrate <input type="checkbox"/> tin and magnesium chloride <input type="checkbox"/>	each correct tick = 1 mark three ticks and two correct = 1 mark three ticks and one correct = 0 marks four or five ticks = 0 marks	
Total			4			

Question number			12	CSS00558		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	8Pm1	A	2	they all repel each other (idea that) the north poles are next to north poles / south poles are next to south poles / like poles are next to each other		
(b)	8Pm1	A	2	they all attract each other (idea that) the north and south poles are next to each other / unlike poles are next to each other		
Total			4			

Question number			13	CSS00418		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	8Pf1	A	2	10/4 or distance/time 2.5 (in metres per hour)		
(b)	8Pf1	A	1	4 (hours)		
Total			3			