
SCIENCE

1113/01

Paper 1

For Examination from 2014

SPECIMEN MARK SCHEME

MAXIMUM MARK: 50

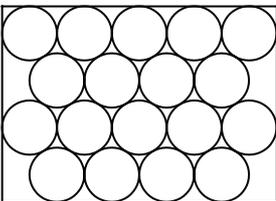
This document consists of **7** printed pages and **1** blank page.

Question	1		
Part	Mark	Answer	Further Information
(a)	1	water plants / bamboo plant	Accept plant / bamboo
(b)	1	snail / panda	
(c)	1	idea of eating both animals and plants	
(d)	1	energy flow	Ignore what eats what
(e)	1	not enough food / shelter / habitat	Accept loss of homes / loss of nests
Total	5		

Question	2		
Part	Mark	Answer	Further Information
(a)	2	C / very high melting point E / good conductor of heat	1 mark for each answer Either order
(b)	1	B / can be compressed	
(c)	1	F / poor conductor of heat	
(d)	1	H / non-conductor of electricity	
Total	5		

Question	3		
Part	Mark	Answer	Further Information
(a) (i)	1	The amplitude of whistle 1 is less than the amplitude of whistle 2 .	
(ii)	1	The wavelength of whistle 1 is the same as the wavelength of whistle 2 .	
(b)	2	(Loudness) whistle 2 is louder (than whistle 3) (Pitch) whistle 2 has a lower pitch (than whistle 3)	1 mark for each Accept converse argument for each answer
Total	4		

Question	4		
Part	Mark	Answer	Further Information
	1	(Coral reef fish is a) clownfish .	
Total	1		

Question	5		
Part	Mark	Answer	Further Information
(a)	1	Diagram should show regular arrangement of close packed particles 	The regular arrangement does not need to fill the box.
(b) (i)	1	In diffusion the perfume moves from an area of high concentration to an area of low concentration.	Accept higher/lower, more/less Both required for 1 mark
(ii)	1	(idea that) particles move or spread out	
Total	3		

Question	6		
Part	Mark	Answer	Further Information
(a)	1	Yes quotes some information from the table such as Mercury is closest to Sun and shortest time for orbit	No mark for yes – marks are for the explanation
(b) (i)	2	No Earth is cooler than Mars but closer to the Sun Mercury is cooler than Venus but closer to the Sun	No mark for no – marks are for the explanations
(ii)	1	information about more planets	Accept find another source to check the evidence obtained
(c)	1	(strength of) gravity is higher on Earth than Mars	Accept mass of Earth is greater than Mars
Total	5		

Question	7		
Part	Mark	Answer	Further Information
(a) (i)	1	Coo (and) Lam	Either order
(ii)	1	the ones that produce the most eggs	
(b)	2	size of eggs <input checked="" type="checkbox"/> amount of milk produced <input type="checkbox"/> low life expectancy <input type="checkbox"/> number of feathers <input type="checkbox"/> colour of feathers <input type="checkbox"/> resistance to disease <input checked="" type="checkbox"/>	2 correct = 2 marks 1 correct = 1 mark If 3 boxes ticked, 2 correct = 1 mark If 3 boxes ticked, 1 correct = 0 marks If 4 or 5 or 6 boxes ticked, 2 correct = 0 marks
Total	4		

Question	8		
Part	Mark	Answer	Further Information
(a)	1	Igneous rocks are formed when molten lava from a volcano cools down.	
(b)	1	Sedimentary rocks are made from grains of rock that are cemented (stuck) together.	
(c)	1	Metamorphic rocks are made when heat and pressure change other types of rock.	
(d)	1	Sedimentary rocks are found in layers and often contain fossils.	
Total	4		

Question	9		
Part	Mark	Answer	Further Information
(a)	2	A – coil or wire B – core	
(b)	2	part A – material: copper part B – material: iron	
Total	4		

Question	10																				
Part	Mark	Answer	Further Information																		
(a)	2	<table border="0"> <thead> <tr> <th>diet</th> <th></th> <th>health problem</th> </tr> </thead> <tbody> <tr> <td>too much sugar</td> <td>—</td> <td>heart disease</td> </tr> <tr> <td>too much fat</td> <td>- - -</td> <td>tooth decay</td> </tr> <tr> <td>too much salt</td> <td>—</td> <td>high blood pressure</td> </tr> <tr> <td>too little protein</td> <td>—</td> <td>little energy</td> </tr> <tr> <td>too little carbohydrate</td> <td>—</td> <td>poor growth</td> </tr> </tbody> </table>	diet		health problem	too much sugar	—	heart disease	too much fat	- - -	tooth decay	too much salt	—	high blood pressure	too little protein	—	little energy	too little carbohydrate	—	poor growth	4 correct = 2 mark 2 or 3 correct = 1 mark 1 correct = 0 marks
diet		health problem																			
too much sugar	—	heart disease																			
too much fat	- - -	tooth decay																			
too much salt	—	high blood pressure																			
too little protein	—	little energy																			
too little carbohydrate	—	poor growth																			
(b) (i)	1	pineapple (and) banana	Both required, either order																		
(ii)	1	(idea that it) keeps the digestive system healthy / speeds up the movement of waste out of the body / helps prevent (bowel) cancer	Accept prevents constipation																		
(iii)	1	fruits contain very little fat (or no fat) / there is less fat than fibre in fruit																			
(iv)	1	mass / size / volume																			
Total	6																				

Question	11																														
Part	Mark	Answer	Further Information																												
(a)	3	<table border="1"> <thead> <tr> <th>length in cm</th> <th>temperature before in °C</th> <th>temperature at end in °C</th> <th>temperature change in °C</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>20</td> <td>22</td> <td>2</td> </tr> <tr> <td>2</td> <td>21</td> <td>25</td> <td>4</td> </tr> <tr> <td>3</td> <td>21</td> <td>27</td> <td>6</td> </tr> <tr> <td>4</td> <td>21</td> <td>26</td> <td>5</td> </tr> <tr> <td>5</td> <td>21</td> <td>31</td> <td>10</td> </tr> <tr> <td>6</td> <td>22</td> <td>34</td> <td>12</td> </tr> </tbody> </table>	length in cm	temperature before in °C	temperature at end in °C	temperature change in °C	1	20	22	2	2	21	25	4	3	21	27	6	4	21	26	5	5	21	31	10	6	22	34	12	<p>Correct data recorded in table = 1 mark</p> <p>Correct headings = 1 mark</p> <p>Correct temperature changes entered in table = 1 mark</p> <p>Accept if not in correct order but data is same</p>
length in cm	temperature before in °C	temperature at end in °C	temperature change in °C																												
1	20	22	2																												
2	21	25	4																												
3	21	27	6																												
4	21	26	5																												
5	21	31	10																												
6	22	34	12																												
(b)	1	result for 4 cm	This can be highlighted on the table or written down																												
(c)	1	exothermic																													
Total	5																														

Question	12		
Part	Mark	Answer	Further Information
(a)	1	newtonmeter / forcemeter	
(b)	1	(idea of) checking reliability / identify anomalous / odd / unusual results	
(c)	1	9.7	
(d)	1	32.6 - first row second number	Accept answer written on paper by (d)
Total	4		

BLANK PAGE