

**SCIENCE**

**1113/01**

Paper 1

**October 2015**

**FINAL 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 9 printed pages and 1 blank page.

Question number	1	CSS00164	
Part	Mark	Answer	Further Information
(a)	2	A (cellulose cell) wall B (cell) membrane	each correct answer = 1 mark
(b)	1	cell wall / (large) vacuole / A / D	
(c)	1	chloroplasts	
(d)	1	to absorb water / absorb mineral salts / absorb nutrients	
<b>Total</b>	<b>5</b>		

Question number	2	CSS00098MS_A	
Part	Mark	Answer	Further Information
(a)	1	1	Accept any value between 0 and 3
(b)	1	pink or red to blue or purple.	both colours correct = 1 mark
<b>Total</b>	<b>2</b>		

Question number	3	CSS00387	
Part	Mark	Answer	Further Information
(a)	2	A Mars B Earth C Mercury D Venus	four correct = 2 marks two or three correct = 1 mark one correct = 0 marks
(b)	2	The planet with the smallest orbit around the Sun is planet C.  The planet that takes the shortest time to orbit the Sun is planet C.	each correct sentence = 1 mark  Accept Mercury instead of planet C
<b>Total</b>	<b>4</b>		

Question number	4	CSS00118_A	
Part	Mark	Answer	Further Information
(a)	2	Any two from size (of plant) / height (of plant) number of leaves / size of leaves amount of roots / length of roots size of flowers / number of flowers thicker or thinner stems	
(b)	2	photosynthesis <input type="checkbox"/> pollination <input checked="" type="checkbox"/> respiration <input type="checkbox"/> fertilisation <input checked="" type="checkbox"/> excretion <input type="checkbox"/>	three ticks, two correct and one incorrect = 1 mark  three ticks, one correct and two incorrect = 0 marks  four or more ticks = 0 marks
<b>Total</b>	<b>4</b>		

Question number	6	CSS00278	
Part	Mark	Answer	Further Information
(a)	2		all correct = 2 marks two correct = 1 mark one correct = 0 marks
(b)	2	iron + magnesium sulfate	one mark for each correct product Do not accept magnesium sulfide
(c)	1	Copper is higher in the reactivity series than iron. <input type="checkbox"/> Copper is more reactive than iron. <input type="checkbox"/> Iron is more reactive than copper. <input checked="" type="checkbox"/> Iron sulfate is higher in the reactivity series than copper sulfate. <input type="checkbox"/>	two or more ticks = 0 marks
<b>Total</b>	<b>5</b>		

Question number	6	CSS00366	
Part	Mark	Answer	Further Information
(a)	1	units	Accept s / seconds / hours
(b)	1	citric (acid)	
(c)	1	bar chart	
(d)	1	(idea of) doing the experiment again	
<b>Total</b>	<b>4</b>		

		CSS00397	
Part	Mark	Answer	Further Information
(a) (i)	1	When Lily's torch light overlaps with Mia's torch light, <b>cyan</b> light is produced.	
(ii)	1	When Safia's torch light overlaps with Lily's torch light, <b>magenta</b> light is produced.	
(iii)	1	When all three lights overlap, <b>white</b> light is produced.	
(b)	1	(changes to) yellow	
Total	4		

		CSS00317	
Question number	Mark	Answer	Further Information
(a)	1	growth of body hair / pubic hair	Accept idea of growth spurt
(b)	2	produce or release eggs / ova / ovum / ovulation produces hormones / controls menstruation	
(c) (i)	1	prepare for implantation (of fertilised egg)	
(ii)	1	released as a period / menstruation / released as blood out of vagina / passes out through the vagina	Accept it will break down
Total	5		

Question number	9	CSS00177_A	
Part	Mark	Answer	Further Information
(a)	1	(idea of) running out / used up / non-renewable / finite resource	
(b)	2	Any two from solar wind hydroelectric geothermal tidal wave biofuels	
<b>Total</b>	<b>3</b>		

Question number	10	CSS00189	
Part	Mark	Answer	Further Information
(a)	1	bends or straightens	Accept movement in one plane / movement in one direction
(b)	1	support / protection	
<b>Total</b>	<b>2</b>		

Question number	11	CSS00359	
Part	Mark	Answer	Further Information
(a)	3	<p>Fossils are often the remains of the <b>hard parts</b> of the animal.</p> <p>The rest of the animal would have <b>decayed</b>.</p> <p>The fossil record can be used to estimate the <b>age</b> of the Earth.</p>	one mark for each correct answer
(b)	1	E	
(c)	1	<p>There were no animals around when igneous rocks formed. <input type="checkbox"/></p> <p>Animals only lived near water where sedimentary rocks formed. <input type="checkbox"/></p> <p>Igneous rocks form under pressure. <input type="checkbox"/></p> <p>The temperature of the molten rock would have destroyed the remains of the organism. <input checked="" type="checkbox"/></p>	<p>correct tick = 1 mark</p> <p>if more than one tick = 0 marks</p>
<b>Total</b>	<b>5</b>		

Question number	12	GSS00286	
Part	Mark	Answer	Further Information
(a)	1	balance / scales	
(b)	2	<p>(idea of) put block in beaker (full) of water / eureka can of water</p> <p>measure the volume of water (displaced) using a measuring cylinder</p> <p>or</p> <p>(idea of) measure the length, height and width with a ruler / measuring tape</p> <p>(idea that) the three measurements of the block are multiplied together</p>	
(c)	2	<p>7 = 2 marks</p> <p>but</p> <p>210 / 30 = 1 mark</p> <p>or</p> <p>density = mass divided by volume = 1 mark</p>	
(d)	1	<p>g cm<sup>3</sup>    cm<sup>3</sup>g    <u>g/cm<sup>3</sup></u>    cm<sup>3</sup>/g</p>	more than one answer circled = 0 marks
<b>Total</b>	<b>6</b>		

Question number	13	CSS00363									
Part	Mark	Answer	Further Information								
	1	<table border="1"> <thead> <tr> <th>substance</th> <th>type</th> </tr> </thead> <tbody> <tr> <td>chlorine</td> <td>oxide</td> </tr> <tr> <td>sea water</td> <td>element</td> </tr> <tr> <td>sodium chloride</td> <td>compound</td> </tr> </tbody> </table>	substance	type	chlorine	oxide	sea water	element	sodium chloride	compound	all correct = 1 mark
substance	type										
chlorine	oxide										
sea water	element										
sodium chloride	compound										
<b>Total</b>	<b>1</b>										

