



Mark Scheme (Results)

Summer 2019

Pearson Edexcel International iPrimary in
Science (JSC11) Paper 01 Achievement
Test

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Publications Code JSC11_01_1906_MS

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

SECTION A

Question Number	Answer	Mark
1	<p>The only correct answer is A the gazelle and the rabbit</p> <p><i>C is incorrect because lions are carnivores and jackal are omnivores</i></p> <p><i>B is incorrect because lions are carnivores</i></p> <p><i>D is incorrect because wild cats are carnivores</i></p>	(1)
2	<p>The only correct answer is C Mercury</p> <p><i>A is incorrect because Jupiter is the 5th planet from the Sun</i></p> <p><i>B is incorrect because Mars is the 4th planet from the Sun</i></p> <p><i>C is incorrect because Neptune is the 8th planet from the Sun</i></p>	(1)
3	<p>The only correct answer is C freezing</p> <p><i>A is incorrect because condensing is a gas turning into a liquid</i></p> <p><i>B is incorrect because evaporating is a liquid turning to a gas</i></p> <p><i>D is incorrect because melting is a solid turning to a liquid</i></p>	(1)
4	<p>The only correct answer is B it reduces the friction in the bearings</p> <p><i>A is incorrect because oiling does not increase the friction</i></p> <p><i>C is incorrect because oiling does not increase the friction</i></p> <p><i>D is incorrect because it is the bearing being oiled, not the wheel or the road</i></p>	(1)
5	<p>The only correct answer is C his heart beats faster and his breathing gets faster</p> <p><i>A is incorrect because his breathing gets faster</i></p> <p><i>B is incorrect because his heart beats faster</i></p> <p><i>D is incorrect because his heart beats faster</i></p>	(1)

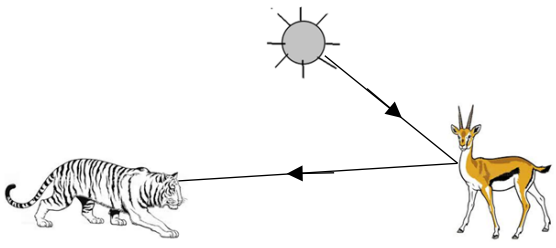
6	<p>The only correct answer is A desert</p> <p><i>B is incorrect because cacti are adapted to live in a desert not grassland</i></p> <p><i>C is incorrect because cacti are adapted to live in a desert not in a river</i></p> <p><i>D is incorrect because cacti are adapted to live in a desert not in woodland</i></p>	(1)
7	<p>The only correct answer is C they flow and take the shape of their container</p> <p><i>A is incorrect because not all liquids are colourless</i></p> <p><i>B is incorrect because not all liquids are mixtures</i></p> <p><i>D is incorrect because not all liquids boil at 100 °C</i></p>	(1)
8	<p>The only correct answer is A because it grows well in the sun or shade and only in well-drained soil and all these are the conditions in the school garden</p> <p><i>B is incorrect because B grows well only in wet soil but the school garden is well drained so will not be suitable</i></p> <p><i>C is incorrect because C grows well only in the shade and the school garden is sometimes in the sun</i></p> <p><i>D is incorrect because D grows only in wet soil but the school garden is well drained so will not be suitable</i></p>	(1)
9	<p>The only correct answer is B the sphere</p> <p><i>A is incorrect because it is less streamlined than B</i></p> <p><i>C is incorrect because it is less streamlined than B</i></p> <p><i>D is incorrect because it is less streamlined than B</i></p>	(1)
10	<p>The only correct answer is D all decomposers break down dead organisms</p> <p><i>A is incorrect because decomposers are not all herbivores</i></p> <p><i>B is incorrect because decomposers are not all predators</i></p> <p><i>C is incorrect because decomposers are not all plants</i></p>	(1)
Total for questions		10

Question Number	Acceptable answers	Additional guidance	Mark
11	<p>water passes into leaves <input type="text" value="4"/></p> <p>water is taken from the soil <input type="text" value="1"/></p> <p>water is transported through the stem <input type="text" value="3"/></p> <p>water is transported through the roots <input type="text" value="2"/></p>	<p>All correct (2)</p> <p>Any one correct (1)</p>	(2)
Total for question			2

Question Number	Acceptable answers	Additional guidance	Mark
12		<p>One mark for each correct line</p> <p>Do not award a mark for answers with more than one line to or from any of the boxes</p>	(3)
Total for question			3

Question Number	Answer	Mark
13	<p>The only correct answer is C because viruses, yeast and bacteria are all types of micro-organisms</p> <p><i>A is incorrect because ants are not a type of micro-organism</i></p> <p><i>B is incorrect because bread is not a type of micro-organism</i></p> <p><i>D is incorrect because soil is not a type of micro-organism</i></p>	(1)
14	<p>The only correct answer is D because if an object is opaque it means no light can pass through it</p> <p><i>A is incorrect because opaque does not mean it conducts electricity</i></p> <p><i>B is incorrect because opaque does not mean it is a light source</i></p> <p><i>C is incorrect because opaque does not mean light can pass through it</i></p>	(1)
15	<p>The only correct answer is B Mercury because it changes from solid to liquid at the lowest temperature (-39)</p> <p><i>A is incorrect because it changes from solid to liquid at the highest temperature</i></p> <p><i>C is incorrect because it changes from solid to liquid at -20 which is not the lowest temperature</i></p> <p><i>D is incorrect because it changes from solid to liquid at 0 which is not the lowest temperature</i></p>	(1)
16	<p>The only correct answer is D because when a solute is added to a solvent it forms a solution</p> <p><i>A is incorrect because when a solution is added to a solvent it does not form a solute</i></p> <p><i>B is incorrect because when a solution is added to a solute it does not form a solid</i></p> <p><i>C is incorrect because when a solid is added to a solvent it does not form a solute</i></p>	(1)

17	<p>The only correct answer is D because making compost is helpful, causing disease is harmful</p> <p><i>A is incorrect because making compost is helpful</i></p> <p><i>B is incorrect because making food go mouldy is not helpful</i></p> <p><i>C is incorrect because causing disease is not helpful</i></p>	(1)
18	<p>The only correct answer is A because the Earth rotates on its axis once a day</p> <p><i>B is incorrect because the Earth does not orbit the Moon once a day</i></p> <p><i>C is incorrect because the Moon does not orbit the Earth once a day</i></p> <p><i>D is incorrect because the Sun does not orbit the Earth</i></p>	(1)
Total for questions		6

Question Number	Acceptable answers	Additional guidance	Mark
19	 <p>The diagram shows a sun at the top center. Two arrows originate from the sun: one points to a gazelle on the right, and the other points to a tiger on the left. A third arrow originates from the gazelle and points towards the tiger's eye. This illustrates the path of light from the sun to the gazelle and then to the tiger's eye.</p>	<p>Line from sun to gazelle and gazelle to tiger's eye (1)</p> <p>Arrows showing direction of travel of light (1)</p> <p>ALLOW dashed/dotted lines</p>	(2)
Total for question			2

Question Number	Acceptable answers	Additional guidance	Mark															
20(a)	<table border="1"> <thead> <tr> <th></th> <th>True</th> <th>False</th> </tr> </thead> <tbody> <tr> <td>the heart pumps blood around the body</td> <td>✓</td> <td></td> </tr> <tr> <td>the blood picks up oxygen in the lungs</td> <td>✓</td> <td></td> </tr> <tr> <td>the nose is part of the circulatory system</td> <td></td> <td>✓</td> </tr> <tr> <td>ventilation of the lungs is called respiration</td> <td></td> <td>✓</td> </tr> </tbody> </table>		True	False	the heart pumps blood around the body	✓		the blood picks up oxygen in the lungs	✓		the nose is part of the circulatory system		✓	ventilation of the lungs is called respiration		✓	All correct = 2 marks, 2 or 3 correct = 1 mark	(2)
	True	False																
the heart pumps blood around the body	✓																	
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the nose is part of the circulatory system		✓																
ventilation of the lungs is called respiration		✓																
20 (b)	thorax vessels		(2)															
20(c)	nutrients	ACCEPT vitamins, minerals, carbon dioxide, hormones IGNORE blood/blood cells/water/oxygen	(1)															
Total for question			5															

Question Number	Acceptable answers	Additional guidance	Mark
21	she slows down (1) (because of increased) friction (between her foot and the ground) (1)	ALLOW she will stop IGNORE (she will) change direction	(2)
Total for question			2

Question Number	Answer	Mark
22	<p>The only correct answer is B flower because the flower produces seeds</p> <p><i>A is incorrect because the anther does not produce seeds</i></p> <p><i>C is incorrect because the leaf does not produce seeds</i></p> <p><i>D is incorrect because the stem does not produce seeds</i></p>	(1)
23	<p>The only correct answer is A as both arrows are the same size and are pointing in opposite directions</p> <p><i>B is incorrect because the arrows are not the same size</i></p> <p><i>C is incorrect because the arrows are not the same size</i></p> <p><i>D is incorrect because the arrows are not the same size</i></p>	(1)
24	<p>The only correct answer is B the friction was greatest between the sandpaper and the mug</p> <p><i>A is incorrect because the type of surface did change the distance travelled</i></p> <p><i>C is incorrect because the wood had the least friction</i></p> <p><i>D is incorrect because friction was greatest between the sandpaper and the mug</i></p>	(1)
25	<p>The only correct answer is D does it have a striped body? and does it have more than four legs?</p> <p><i>A is incorrect because for Question K neither organism has a shell</i></p> <p><i>B is incorrect because for Question L neither organism has feathers</i></p> <p><i>C is incorrect because Question K neither organism has a shell</i></p>	(1)
26	<p>The only correct answer is C flower S is wind pollinated because it has a large and feathery stigma to catch the pollen</p> <p><i>A is incorrect because R is insect pollinated</i></p> <p><i>B is incorrect because R is insect pollinated</i></p>	(1)

	<i>D is incorrect because insect pollinated flowers have sticky stigmas to collect pollen</i>	
Total for questions		5

Question Number	Acceptable answers	Additional guidance	Mark
27(a)	P		(1)
27(b)	increase the temperature of/heat the water OR stir it more rapidly/faster	ALLOW use finer powder ALLOW stir more (than five times)	(1)
Total for question			2

Question Number	Acceptable answers	Additional guidance	Mark															
28(a)	use a sieve (1) rice stays in the sieve / the flour goes through (1)	REJECT filtration/filtering	(2)															
28(b)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">reversible change</th> <th style="text-align: center;">irreversible change</th> </tr> </thead> <tbody> <tr> <td>fries an egg</td> <td></td> <td style="text-align: center;">✓</td> </tr> <tr> <td>warms frozen orange juice</td> <td style="text-align: center;">✓</td> <td></td> </tr> <tr> <td>makes toast</td> <td></td> <td style="text-align: center;">✓</td> </tr> <tr> <td>adds sugar to a cup of hot tea</td> <td style="text-align: center;">✓</td> <td></td> </tr> </tbody> </table>		reversible change	irreversible change	fries an egg		✓	warms frozen orange juice	✓		makes toast		✓	adds sugar to a cup of hot tea	✓		All correct = 2 marks, 2 or 3 correct = 1 mark	(2)
	reversible change	irreversible change																
fries an egg		✓																
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makes toast		✓																
adds sugar to a cup of hot tea	✓																	
Total for question			4															

Question Number	Acceptable answers	Additional guidance	Mark
29(a)	<p>add another cell (1)</p> <p>remove the bulb (1)</p>	<p>ALLOW increase cell voltage</p> <p>ALLOW use thicker/shorter wires (must be comparative)</p> <p>IGNORE references to the switch</p>	(2)
29 (b)	<p>(if switch is off) creates a break in the circuit (1)</p> <p>so (if switch is off) the current / electricity cannot flow (1)</p>	<p>ALLOW (if switch is off) the circuit is no longer complete</p> <p>ALLOW it opens and closes a circuit</p> <p>ALLOW reverse argument (if switch is on) it completes the circuit</p> <p>ACCEPT reverse argument – (if switch is on) it allows the current to flow / it allows the electricity to flow</p> <p>ALLOW it controls whether the motor works or not / it controls whether the bulb lights or not / it controls whether the components (in the circuit) work or not</p>	(2)
Total for question			4

SECTION B

Question	Acceptable answers	Additional guidance	Mark
30(a)	Any two from: balance / (weighing) scales (1) measuring cylinder (1) stirrer (1)	ALLOW spoon/spatula	(2)
30(b)	17 (°C)	REJECT any range eg 17-18	(1)
30(c)	to make it a fair test	REJECT for accuracy/reliability	(1)
30(d)	<p>The only correct answer is A the conclusion</p> <p><i>B is incorrect because the data is the information in the table</i></p> <p><i>C is incorrect because evidence is used to make a conclusion</i></p> <p><i>D is incorrect because a prediction is made before the investigation</i></p>		(1)
Total for question			5

Question	Acceptable answers	Additional guidance	Mark
31(a)	12 (5) 8 6	All correct for 1 mark	(1)
31(b)(i)	Any one of the following amount/type of seed time of day (they watch) how long they count for		(1)
31(b)(ii)	total number of birds increases/goes up	ACCEPT any named bird numbers increases/goes up	(1)
Total for question			3

Question	Acceptable answers	Additional guidance	Mark
32(a)	(because) one might not be correct / improve reliability	<p>ALLOW to find the average</p> <p>ALLOW to see the variation in pulse rate</p> <p>REJECT to make it a fair test</p> <p>REJECT to increase accuracy of results</p>	(1)
32(b)	98		(1)
32(c)	<p>each animal labelled on x-axis (1)</p> <p>y-axis labelled (average) pulse rate (1)</p> <p>ALL bars correct height (2)</p>	<p>ALLOW if different widths</p> <p>2 marks for all the bars correct</p> <p>1 mark for 3 or 4 bars correct</p>	(4)
32(d)	stated value above 205	up to a maximum 1500	(1)
Total for question			7

