



Pearson
Edexcel

Mark Scheme (Results)

Summer 2022

Pearson Edexcel International Primary
Curriculum In Science (JSC11) Paper 01
Year 6 Achievement Test

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Summer 2022

Question Paper Log Number P67631A

Publications Code JSC11_01_2206_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.

Mark scheme

Question number	Answer	Mark
1	<p>The only correct answer is C the grass is a producer</p> <p><i>A is not correct because the fox is a secondary consumer</i></p> <p><i>B is not correct because the grass is a producer</i></p> <p><i>D is not correct because the rabbit is a primary consumer</i></p>	(1)

Question number	Answer	Mark
2	<p>The only correct answer is D newtons</p> <p><i>A is not correct centimetres is a unit for length</i></p> <p><i>B is not correct degrees Celsius is the unit for temperature</i></p> <p><i>C is not correct kilograms is the unit for mass</i></p>	(1)

Question number	Answer	Mark
3	<p>The only correct answer is A fertiliser</p> <p><i>B is incorrect because heat does not contain useful minerals</i></p> <p><i>C is incorrect because light does not contain useful minerals</i></p> <p><i>D is incorrect because sand does not contain useful minerals</i></p>	(1)

Question number	Answer	Mark
4	<p>The only correct answer is D melting</p> <p><i>A is incorrect condensing happens when a gas changes to a liquid.</i></p> <p><i>B is incorrect evaporating happens when a liquid changes to a gas</i></p> <p><i>C is incorrect freezing happens when a liquid changes to a solid</i></p>	(1)

Question number	Answer	Mark
5	<p>The only correct answer is C as it takes 365 days for the Earth to complete an orbit of the Sun and 24 hours to spin once on its axis.</p> <p><i>A is incorrect because it takes 365 days for the Earth to complete an orbit of the Sun and 24 hours to spin once on its axis.</i></p> <p><i>B is incorrect because it takes 365 days for the Earth to complete an orbit of the Sun and 24 hours to spin once on its axis.</i></p> <p><i>D is incorrect because it takes 365 days for the Earth to complete an orbit of the Sun and 24 hours to spin once on its axis.</i></p>	(1)

Question number	Answer	Mark
6	<p>The only correct answer is D - P is the stigma, Q is the anther and R is the ovary.</p> <p><i>A is incorrect because P is the stigma, Q is the anther and R is the ovary.</i></p> <p><i>B is incorrect because P is the stigma, Q is the anther and R is the ovary.</i></p> <p><i>C is incorrect because P is the stigma, Q is the anther and R is the ovary.</i></p>	(1)

Question number	Answer	Mark
7	<p>The only correct answer is C. There are 2 bulbs, 2 cells, 1 motor and 1 switch</p> <p><i>A is not the correct answer because there are 2 bulbs, 2 cells, 1 motor and 1 switch</i></p> <p><i>B is not the correct answer because there are 2 bulbs, 2 cells, 1 motor and 1 switch</i></p> <p><i>D is not the correct answer because there are 2 bulbs, 2 cells, 1 motor and 1 switch</i></p>	(1)

Question number	Answer	Mark
8	<p>The only correct answer is B. W is evaporation, X is sea, Y is condensation and Z is precipitation</p> <p><i>A is not correct because W is showing evaporation, X is the sea, Y is showing condensation of water into clouds and Z is showing precipitation causing rain.</i></p> <p><i>C is not correct because W is showing evaporation, X is the sea, Y is showing condensation of water into clouds and Z is showing precipitation causing rain.</i></p> <p><i>D is not correct because W is showing evaporation, X is the sea, Y is showing condensation of water into clouds and Z is showing precipitation causing rain.</i></p>	(1)

Question number	Answer	Mark
9	<p>The only correct answer is D - storing food in an unsealed container.</p> <p><i>A is not the correct answer because cleaning surfaces is a good food hygiene practice</i></p> <p><i>B is not the correct answer because handwashing is a good food hygiene practice</i></p> <p><i>C is not the correct answer because refrigeration storage is a good food hygiene practice</i></p>	(1)

Question number	Answer	Mark
10	<p>The only correct answer is D. Frogs are vertebrates and have smooth, slimy skin</p> <p><i>A is not correct because frogs are vertebrates and have smooth, slimy skin</i></p> <p><i>B is not correct because frogs are vertebrates and have smooth, slimy skin</i></p> <p><i>C is not correct because frogs are vertebrates and have smooth, slimy skin</i></p>	(1)

Question number	Answer	Mark														
11	<p>Award 2 marks for four correct answers</p> <p>Award 1 mark for two or three correct answers</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2">Substance</th> <th colspan="2">Property</th> </tr> <tr> <th>is a solid at room temperature</th> <th>is magnetic</th> </tr> </thead> <tbody> <tr> <td>iron</td> <td>Yes / No</td> <td><u>Yes</u> / No</td> </tr> <tr> <td>salt</td> <td><u>Yes</u> / No</td> <td>Yes / No</td> </tr> <tr> <td>sand</td> <td><u>Yes</u> / No</td> <td>Yes / <u>No</u></td> </tr> </tbody> </table>	Substance	Property		is a solid at room temperature	is magnetic	iron	Yes / No	<u>Yes</u> / No	salt	<u>Yes</u> / No	Yes / No	sand	<u>Yes</u> / No	Yes / <u>No</u>	(2)
Substance	Property															
	is a solid at room temperature	is magnetic														
iron	Yes / No	<u>Yes</u> / No														
salt	<u>Yes</u> / No	Yes / No														
sand	<u>Yes</u> / No	Yes / <u>No</u>														

Question number	Answer	Additional guidance	Mark
12 (a)	<p>Award one mark for 10 (minutes)</p>		(1)

Question number	Answer	Additional guidance	Mark
12 (b)	Award one mark for The heart		(1)

Question number	Answer	Additional guidance	Mark
12 (c)	<p>Award one mark for</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>Body Part</p> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">blood</div> <div style="border: 1px solid black; padding: 2px 10px;">lungs</div> </div> </div> <div style="text-align: center;"> <p>Function</p> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">breathing</div> <div style="border: 1px solid black; padding: 2px 10px;">increasing the pulse rate</div> <div style="border: 1px solid black; padding: 2px 10px;">transporting oxygen</div> </div> </div> </div> <p>Do not credit answers with more than one line from any of the box on the left</p>		(1)

Question number	Answer	Mark
13	<p>The only correct answer is C. The roots anchor the plant and takes in water and nutrients.</p> <p><i>A is not correct because the flower is where reproduction takes place</i></p> <p><i>B is not correct because the leaf is where food is manufactured</i></p> <p><i>D is not correct because the stem supports the plant and transports water and nutrients</i></p>	(1)

Question number	Answer	Mark
14	<p>The only correct answer is A filtering</p> <p><i>B is not correct since the diagram is showing the technique for filtering and not heating</i></p> <p><i>C is not correct since the diagram is showing the technique for filtering and not sieving</i></p> <p><i>D is not correct since the diagram is showing the technique for filtering and not stirring</i></p>	(1)

Question number	Answer	Mark
15	<p>The only correct answer is A. All predators eat prey</p> <p><i>B is not correct because all predators eat prey.</i></p> <p><i>C is not correct because all predators eat prey. Predators are not producers</i></p> <p><i>D is not correct because all predators eat prey. They eat meat and may also eat plants</i></p>	(1)

Question number	Answer	Mark
16	<p>The only correct answer is C - force C is acting towards the centre of the moon and represents the weight</p> <p><i>A is incorrect since the force representing weight acts towards the centre of the moon and not vertically away from the moon</i></p> <p><i>B is incorrect since the force representing weight acts towards centre of the moon</i></p> <p><i>D is incorrect since the force representing weight acts towards the centre of the moon</i></p>	(1)

Question number	Answer	Mark
17	<p>The only correct answer is D. The bird has a straight beak and no crest of feathers on head.</p> <p><i>A is not correct the bird in the picture has a straight beak and no crest of feathers on its head.</i></p> <p><i>B is not correct the bird in the picture has a straight beak and no crest of feathers on its head.</i></p> <p><i>C is not correct the bird in the picture has a straight beak and no crest of feathers on its head.</i></p>	(1)

Question number	Answer	Mark
18 (a)	<p>The only correct answer is C the forces are a different size and act in the opposite direction</p> <p><i>A is incorrect because the two forces acting on the cyclist are unbalanced and are acting in opposite directions.</i></p> <p><i>B is incorrect because the two forces acting on the cyclist are unbalanced and are acting in opposite directions.</i></p> <p><i>D is incorrect because the two forces acting on the cyclist are unbalanced and are acting in opposite directions.</i></p>	(1)

Question number	Answer	Additional guidance	Mark
18 (b)	<p>Award one mark for each of the following</p> <p>the helmet reduces air resistance/friction (1)</p> <p>the helmet is streamlined (1)</p>	<p>Ignore go faster</p> <p>Allow helmet has low air resistance</p> <p>Accept aerodynamic shape</p>	(2)

Question number	Answer	Additional guidance	Mark
18 (c)	<p>Award one mark for the following</p> <p>Use tyres with a tread/rougher tyre surface (1)</p>	<p>Ignore Increase grip or increase friction</p> <p>Ignore add spikes, bumps/ studs or make tyres hard</p> <p>Allow more grooves / add a pattern to the tyres</p>	(1)

Question number	Answer	Additional guidance	Mark
19	<p>The sugar in this process is an example of a solute. (1)</p> <p>The sweet liquid produced in this process is an example of a solution. (1)</p>		(2)

Question number	Answer	Additional guidance	Mark
20	<p>Award 1 mark for each line that is correct up to 3 marks</p> <p>Picture of seed Method of dispersal</p> <p>Do not credit answers with more than one line from any of the boxes on the left</p>		(3)

Question number	Answer	Additional guidance	Mark
21	<p>Award one mark for any one of the following</p> <p>Circuit B has the <u>lowest</u> voltage / circuit C has the <u>highest</u> voltage (1)</p> <p>Circuit A has a higher voltage than circuit B (1)</p> <p>Circuit A has a lower voltage than circuit C (1)</p> <p>Circuit C has a higher voltage (than circuit B OR Circuit A) (1)</p> <p>each circuit has a different voltage (1)</p>	<p>Allow any stated values that give a correct comparison</p> <p>Ignore brightness</p> <p>Ignore the higher the voltage the brighter the lamp</p> <p>Ignore length / thickness of wire</p> <p>Accept C has more voltage but not C has high voltage</p>	(1)

Question number	Answer	Mark
22	<p>The only correct answer is A - bacteria</p> <p><i>B is not correct because insects are large enough to be observed with the naked eye and do not require a microscope</i></p> <p><i>C is not correct because mammals are large enough to be observed with the naked eye and do not require a microscope</i></p> <p><i>D is not correct because reptiles are large enough to be observed with the naked eye and do not require a microscope</i></p>	(1)

Question number	Answer	Mark
23	<p>The only correct answer is A – how hot something is</p> <p><i>B is incorrect because temperature is a measure of how hot something is and not length</i></p> <p><i>C is incorrect because temperature is a measure of how hot something is and not how shiny something is</i></p> <p><i>D is incorrect because temperature is a measure of how hot something is and not how solid something is.</i></p>	(1)

Question number	Answer	Mark
24	<p>The only correct answer is D increase the amount of oxygen in the lungs</p> <p><i>A is incorrect because when lungs inflate the amount of air in the lungs increases therefore increasing the amount of oxygen.</i></p> <p><i>B is incorrect because when lungs inflate the amount of air in the lungs increases therefore increasing the amount of oxygen.</i></p> <p><i>C is incorrect because when lungs inflate the amount of air in the lungs increases therefore increasing the amount of oxygen.</i></p>	(1)

Question number	Answer	Mark
25	<p>The only correct answer is C the diagram showing <i>light rays</i> travel from the light source to the book and reflecting off the book into the student's eyes</p> <p><i>A is not correct because light rays travel from the light source to the book and reflecting off the book into the student's eyes</i></p> <p><i>B is not correct because light rays travel from the light source to the book and reflecting off the book into the student's eyes</i></p> <p><i>D is not correct because light rays travel from the light source to the book and reflecting off the book into the student's eyes</i></p>	(1)

Question number	Answer	Additional guidance	Mark
26	(Dish) C (1) seeds require warmth and moisture to germinate well (1)	Linked mark points Allow reference to moisture evaporating from dish B	(2)

Question number	Answer	Additional guidance	Mark
27(a)	<p>Award 1 mark for each of the following up to a maximum of 2 marks.</p> <p>(In the Ptolemy model) the Earth is at the centre of the planetary system / the Sun is not at the centre</p> <p>OR</p> <p>the sun <u>should be</u> at the centre of the solar system / in the present model the Sun is at the centre (1)</p> <p>(In the Ptolemy model) the Sun or other planets orbits the Earth / the Earth does not orbit the sun</p> <p>OR</p> <p>in the present model the Earth orbits the Sun / the planets do not orbit the Earth (1)</p>	<p>Ignore planets are in the wrong order / sun not in the right place</p> <p>Ignore references to Uranus and Neptune not being included in the Ptolemy model</p> <p>Allow Venus is closer to the sun than Mercury</p> <p>Accept (In the Ptolemy model) the Moon looks like a planet / in present model the Moon is a satellite of Earth</p> <p>Accept (In the Ptolemy model) the orbits are circular / the orbits are not circular in the present model</p>	(2)

Question number	Answer	Additional guidance	Mark
27(b)	(Uranus and Neptune) had not been discovered / seen / observed (1)	Ignore too far away	(1)

Question number	Answer	Additional guidance	Mark
28a	Award one mark for the following Water and (substance) B (given in any order)	Both required for 1 mark	(1)

Question number	Answer	Additional guidance	Mark
28b	Award one mark for the following (substances) A and C (given in any order)	Both required for 1 mark	(1)

Question number	Answer	Additional guidance	Mark
29	(Buzzer) is louder <u>er</u> / more sound(1) (Motor) moves faster <u>er</u> /more movement (1)	Must be comparative e.g. Accept loudest, but not loud Fast is insufficient, but accept fastest	(2)

Question number	Answer	Additional guidance	Mark
30	<p>small/thin leaves (1) OWTTE to reduce water loss / transpiration (1)</p> <p>OR</p> <p>thorns (1) to deter herbivores from eating the leaves (1)</p> <p>OR</p> <p>long roots (1) to find water (1)</p>	<p>Allow spikes</p> <p>Do not accept predators</p>	(2)

Section B

Question number	Answer	Additional guidance	Mark
31(a)	<p>Award 1 mark for each of the following up to a maximum of 2 marks.</p> <p>same type of paper (1)</p> <p>same wing width for each test (1)</p> <p>same drop height / drop from 2 m high (1)</p> <p>same distance from fan each test / drop 1 m away from the fan (1)</p> <p>same size/type of paper clip (1)</p> <p>same fan speed (1)</p>	<p>Allow same height of the spinner</p>	(2)

Question number	Answer	Additional guidance	Mark
31(b)	<p>Award 1 mark for</p> <p>length of wings (1)</p>	<p>Ignore width / size</p>	(1)

Question number	Answer	Additional guidance	Mark
31(c)	Award 1 mark for repeat readings / tests three times (1)		(1)

Question number	Answer	Additional guidance	Mark
31(d)	the 45cm result/test 3 for 4 cm length wings looks odd (1) because the value of (45cm) is very different from the other two results for test 1 and 2 (for the same length of wing) (1)		(2)

Question number	Answer	Additional guidance	Mark
32 (a)	(Question) 4		(1)

Question number	Answer	Additional guidance	Mark
32 (b)	15 (g)		(1)

Question number	Answer	Additional guidance	Mark
32 (c)	bar at 30°C correctly shown (1) bar at 45°C correctly shown (1)	Ignore width of the bar	(2)

Question number	Answer	Additional guidance	Mark
32 (d)	decreases		(1)

Question number	Answer	Additional guidance	Mark
33(a)	ruler	Allow measuring tape	(1)

Question number	Answer	Additional guidance	Mark
33(b)	Award 1 mark for any one of the following releases toy car from the same point on the ramp each test (1) always measures from the bottom of the ramp to the back of the car (1)	Accept same car Ignore repeat step 4, or 2 and 4	(1)

Question number	Answer	Additional guidance	Mark
33 (c) (i)	(stopping) distance in cm		(1)

Question number	Answer	Additional guidance	Mark
33 (c) (ii)	84 cm	Accept any value between 82 -86 cm Accept value given from candidates drawn line of best fit +/- 1 small square	(1)

