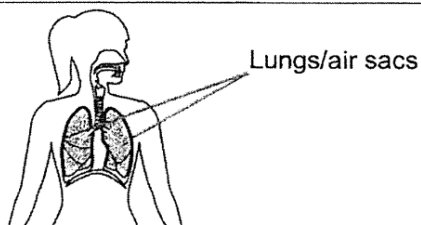


Prelim 2021
Suggested Answers
Section A

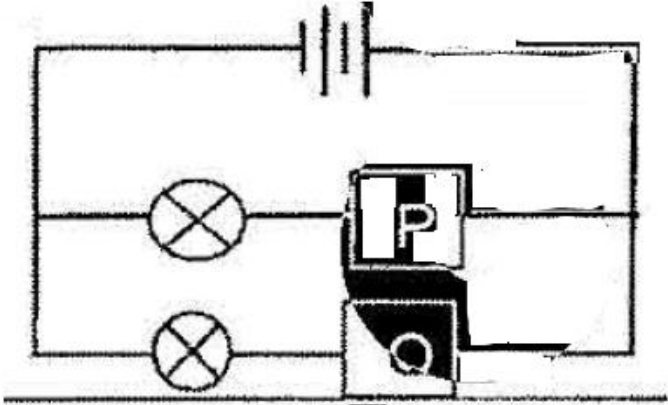
1	4	11	2	21	2
2	3	12	3	22	3
3	4	13	3	23	3
4	1	14	2	24	3
5	3	15	2	25	2
6	3	16	3	26	2
7	1	17	4	27	1
8	3	18	1	28	3
9	1	19	1		
10	2	20	2		

Section B

Qn No	Acceptable Answers
29.(a)	Minah. The mosquito has a four-stage life cycle but the cockroach has a three-stage life cycle. Owen. The young of the mosquito does not resemble the adult but the young of the cockroach resembles the adult.
(b)(i)	Action 1 There will be no place to lay eggs. (Effect of action) So there will be fewer eggs to hatch and develop into larva and adults. (Effect on life cycle)
(ii)	Action 2 The oil will block the breathing tube of the larva The young of the mosquito will not be able to obtain air/ cannot breathe (0.5m) and will die (0.5m).
30. (a)	To find out <u>how</u> the number of part V affects the distance fruit S travels.
(b)	As the number of part V on the fruit decreases, the distance travelled by the fruit decreases.
(c)	He did not repeat the experiment at least 3 times.
(d)	The seed should be light, small and has wing-like structure (any 2 characteristics)
31. (a)	
(b)(i)	Oxygen: decreased Carbon dioxide: increased
(ii)	Wei Qi and his brother took in oxygen and gave out carbon dioxide.
32. (a)	Circulatory system heart pumps blood
(b)	The <u>blood</u> in body system X transports carbon dioxide away from all parts of the body and brings it to the <u>lungs</u> to be exhaled through the <u>nose</u> . CO₂ given out m
33. (a)	To absorb water and mineral salts.

↳ revision point : another function of roots :
- anchor ¹ the plant firmly to the ground

Q33	b) The water-carrying tubes transported the liquid from the roots to the stem to the leaves. c) Ruler L has more scale markings and therefore will give more accurate measurements of the height of water level.
Q34	a) i) Label mouth, stomach, small intestine ii) digestive juices break down food into simpler substances. b) Food is in bigger pieces so there will be less exposed surface area of food to digestive juices.
Q35	a) Material A absorbed Xiaoli's perspiration so there was increased friction between Material A and her hand. b) - The shuttlecock changed direction. - The shuttlecock changed speed.
Q36	a) Potential energy → kinetic energy → kinetic energy / potential energy

	<p>b) Some kinetic energy of the ball was converted to heat energy and sound energy due to a resistance and friction. The ball had less kinetic energy to reach B.</p> <p>c) Push the handle down more to convert to greater potential energy.</p>
Q37	<p>a) Either object P or Q could be a conductor of electricity. However, since both objects are arranged in series with the bulbs, they will not light up as it is an open circuit.</p> <div style="text-align: center;">  </div> <p>b)</p>
Q38	<p>a) Set-up R. It had the most water at the highest temperature so the water possessed the most heat.</p> <p>b) Allow the egg to cook for longer than 5 minutes.</p> <p>c) Less cooked. The egg from the refrigerator was at a lower temperature so it needed to gain more heat from the water to be cooked warmer.</p>
Q39	<p>a) The greater the distance of the torch from the wall, the greater the height of the shadow formed.</p> <p>b) As the distance between the torch and the wall increased, the height of the shadow formed increased until 15cm. above 15cm, the height of the shadow formed on the screen remained the same.</p> <p>c) 2, 3, 1</p>
Q40	<p>a) When a solid gains heat and changes to a liquid at a fixed temperature.</p> <p>b) The room for set-up P had a lower temperature than for set-up Q. The ice block in set-up P gained less heat from the surroundings than in set-up Q. Hence, the block of ice melted slower.</p> <p>c) There was no temperature difference between the glass of water, in set-up Y and the surrounding air. Hence, the water vapour in the air could not lose heat and condense.</p>