

Answer

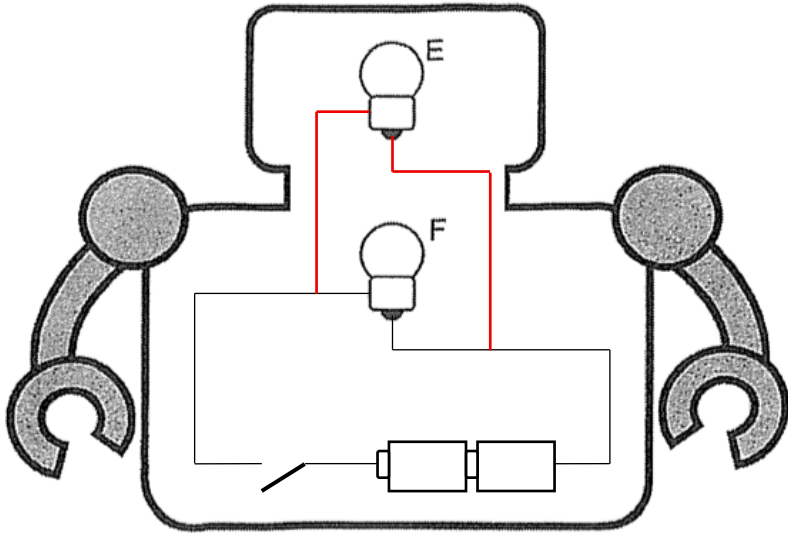


2024 Primary 5 Science Rosyth School End - of - Year Exam

Booklet B

29)	OUT OF SYLLABUS a) Chloroplasts & cell wall [1m] b) Toothpaste R has no effect on the bacteria while R and Q kills some of the bacteria and some bacteria is still alive. 1[m] c) The different types of toothpaste requires some time to kill the bacteria and reduce its colony size. [1m]				
30)	a) 1 mark b) As the stomata / tiny openings are covered with oil, <u>carbon dioxide from the surroundings cannot enter the leaves</u>, [0.5m] hence the leaves in set-R cannot <u>carry out photosynthesis and died</u>. [1m] Also, <u>oxygen from the surroundings cannot enter</u>, [0.5m] not allowing the plant to carry out its life processes. c) To ensure that the <u>surrounding temperature is the same</u> [1m]				
31)	a) 1 mark *not a well set question as veins also contain O₂ <table border="0"> <tr> <td>☒ oxygen</td> <td>☒ carbon dioxide</td> </tr> <tr> <td>☒ waste products</td> <td>☐ undigested food</td> </tr> </table>	☒ oxygen	☒ carbon dioxide	☒ waste products	☐ undigested food
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☒ waste products	☐ undigested food				

	b) Blood in B and C both <u>contain high amount of oxygen</u>. / oxygenated blood / blood-rich in oxygen [1m] c) Gills [1m] d) In fish, the <u>blood flows in one direction</u> / single circulation but in human, the <u>blood flows in two directions</u> / double circulations. [1m]
32)	a) Process Z : fertilisation [1m] b) Brush <u>some pollen grains from the anther</u> and use the same brush to <u>transfer the pollen grains to the stigma</u>. [1m] c) By using hand pollination, <u>more pollen grains can be rubbed against the stigma</u>, [0.5m] increasing rate of pollination, followed by <u>higher rate of fertilisation and formation of more fruits</u>. [0.5m] d) Characteristic One : Sweet, juicy flesh How it helps : The <u>sweet and juicy flesh attracts more animals to eat it</u> [1m] and in the process, swallowing the hard seeds. Characteristic Two : Hard, indigestible seeds How it helps : The hard, indigestible will <u>not be easily damaged by chewing and can pass through the digestive system intact</u> [1m] so that the seeds can be germinated once they are passed out from the droppings.
33)	The tent <u>did not allow sunlight to pass through</u>. [1m] In the absence of light, the <u>grass cannot make food</u> [1m] which cause it to die due to lack of food.

34)	a) Carbon dioxide, water [1m] b) <u>Repeat the experiment at least three times</u> [1m] and <u>calculate the average</u> [1m] c) No. Using blue, the water plant did not produce the most bubbles. [0.5m] Instead, the <u>rate of photosynthesis is at its highest when water plant is exposed to white light.</u> [0.5m]
35)	a) Electrical conductor [1m] b) When <u>the bulb is fused / blown, the bell will still ring</u> [1m] when there is flooding. c) When it rains heavily, more water enters hole H which causes <u>sheet A to touch the metal rods,</u> [1m] forming <u>closed circuit. Electric current flows through the bell and the bulb,</u> [1m] causing the bell to ring and the bulb to light up at the same time.
36)	a) The batteries are wrongly arranged / the wires are connected to the bulb wrongly. [1m] b) 1 mark for correct arrangement of batteries in series 1 mark for correct arrangement of switch to control 2 bulbs 1 mark for parallel arrangement of bulb E and F 
37)	a) Warm <u>water vapour</u> lost heat to the cold beaker of water and <u>condensed intro water droplets</u> [1m] which added mass.

	b) Prepare an identical set-up as the experimental set-up, <u>except that the temperature of the 200ml of water was at room temperature.</u> [1m] c) Timmy <u>repeated the experiment for 3 times.</u> [1m]
38)	a) evaporation [1m] b) <u>Air</u> in the freezer <u>lost heat to the cooler substance Q.</u> [1m] c) 1 mark gas → liquid
39)	a) Melting is a process whereby a solid changes into a liquid at a fixed /specific temperature [1m] b) 0°C [1m] c) Y. The ice cubes inside material Y took <u>longer time</u> [0.5m] to melt, indicating Y was a <u>poorer conductor of heat.</u> [0.5m] When placed in a container made of Y, the <u>hot soup lost heat slower to the cooler surroundings</u> outside. [1m]
40)	a) 100°C [1m] b) Temperature of the surrounding air / material of the surface where the cups are placed on [1m] c) Cup V does not have a layer of air. Cup <u>V lost heat faster</u> to the ice cubes to become a <u>colder surface.</u> [0.5m] Warm <u>water vapour lost heat faster to the colder surface of cup V</u> [0.5m] and <u>condensed faster to form more water droplets.</u> [1m]