

# Answer

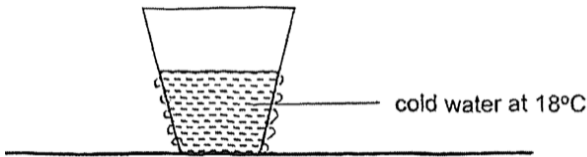


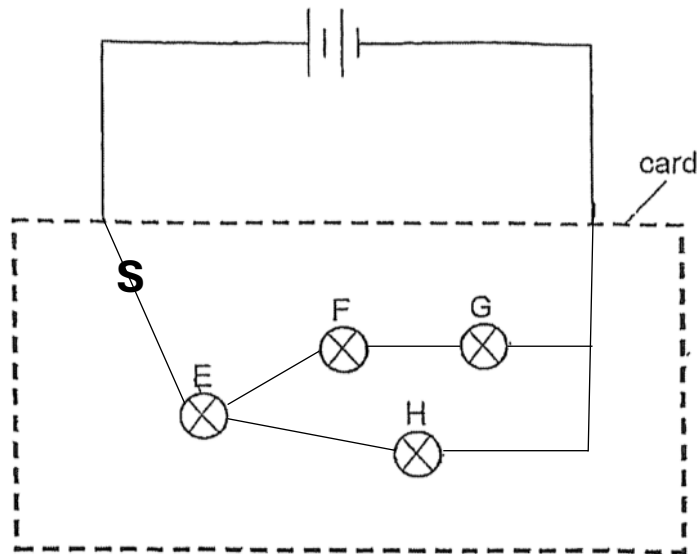
## 2024 Primary 5 Science Tao Nan School End - of - Year Exam

### Booklet B

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 29) | <p>a) Fertilisation [1m]</p> <p>b) Yes, there is <b><u>another ovary which can produce the egg</u></b> for fertilization to take place. [1m]</p>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 30) | <p><b>OUT OF SYLLABUS</b></p> <p>a) Nucleus contains genetic information that is passed down from the parent cell to the daughter cell [1m]</p> <p>b) Chloroplast [1m]</p> <p>c) When nearer to light, cell X can absorb more light to make more food. [1m]</p>                                                                                                                                                                                                                                                                                                                |
| 31) | <p>a) 70 bpm [1m]</p> <p>b) As the <b><u>number of sit-ups performed increased, the heart rate increased.</u></b> [1m]</p> <p>c) To ensure that the heart rate return to resting state so that it will be a fair test. [1m]</p> <p>d) In the respiratory system, <b><u>the lungs breathed in oxygen faster from the surroundings which is then absorbed into the blood.</u></b> [1m] For the circulatory system, <b><u>the heart pumped blood faster, transporting oxygen and digested food to the required muscles to release more energy</u></b> [1m] for doing sit-ups.</p> |

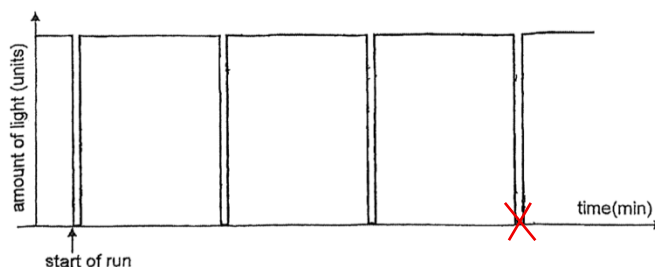
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|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 32) | <p>a) The <b><u>spores of plant A are dispersed</u></b> and when they land on favourable conditions, they <b><u>germinate and grow into young plants A.</u></b> [1m]</p> <p>b) He should remove all the plants A. After removal, there is no overcrowding and there is <b><u>more space, water, nutrients and sunlight for sunflower plants to grow more healthily.</u></b> [1m]</p> <p>c) The nectar attracts more bees to visit the flowers for feeding, in the process, more <b><u>pollen grains are transferred from the anther to stigma, allowing pollination</u></b> [1m] to take place. This is followed by <b><u>fertilization and the ovules will become seeds, the ovary will become the fruit.</u></b> [1m]</p> |
| 33) | <p><b>NOT TESTED IN 2025 EOY FOR MOST SCHOOLS!</b></p> <p>a) Photosynthesis is a process whereby <b><u>carbon dioxide and water is taken in,</u></b> with the <b><u>chlorophyll absorbing sunlight,</u></b> to <b><u>produce food</u></b> / sugar / glucose and <b><u>oxygen.</u></b> [1m]</p> <p>b) In set-up A, the <b><u>water plant produced more oxygen bubbles.</u></b> [1m]</p> <p>c) Change 1 : ensure that in both set-ups, <b><u>the water does not contain substance Q</u></b> [1m]<br/> Change 2 : <b><u>Cover set-up A with black paper so the water plant does not have light while set-up B is exposed to light.</u></b> [1m]</p>                                                                            |
| 34) | <p>a) Melting is a process whereby <b><u>a solid changes into a liquid at a fixed</u></b> / specific <b><u>temperature.</u></b> [1m]</p> <p>b) Since the room was of higher temperature, <b><u>the ice gained heat faster from the warmer room</u></b> [1m] and <b><u>melted faster</u></b> [1m] to form more liquid water.</p>                                                                                                                                                                                                                                                                                                                                                                                             |

| 35)                  | <p>a) Dimmer [1m]</p> <p>b) 2 marks</p> <table border="1"> <tr> <th>Electrical conductor</th><th>Electrical insulator</th></tr> <tr> <td>A</td><td>C</td></tr> <tr> <td>B</td><td>D</td></tr> </table>                                                                                                                                                                                                                                                                                                                             | Electrical conductor | Electrical insulator | A | C | B | D |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|---|---|---|---|
| Electrical conductor | Electrical insulator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                      |   |   |   |   |
| A                    | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |                      |   |   |   |   |
| B                    | D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |                      |   |   |   |   |
| 36)                  | <p>a) 1 mark (droplets formed on the outside of the cup)</p>  <p>b) Put some ice cubes into water / add more cold water [1m]</p> <p>c) At night, the <b><u>back lost heat</u></b> to the cooler surroundings to <b><u>become colder</u></b>. [1m] The next morning, warm <b><u>water vapour</u></b> in the surroundings <b><u>lost heat to the cooler back</u></b> [0.5m] of organism W and <b><u>condensed into water droplets</u></b>. [1m]</p> |                      |                      |   |   |   |   |
| 37)                  | <p>a) Physical property : flexible<br/>Explanation : The bristle is able to <b><u>bend without breaking</u></b> [1m] when sweeping.</p> <p>Physical property : Waterproof<br/>Explanation : When in contact with water, <b><u>the bristle will not absorb any water</u></b>, [1m] hence remaining dry and fluffy.</p> <p>b) No. The robot cleaner cannot perform function like living thing such as <b><u>*reproduce</u></b> [1m] / need air, food and water to survive.<br/>* list just one unique function of living thing.</p>  |                      |                      |   |   |   |   |
| 38)                  | <p>a) 1 mark for correct arrangement of E and H<br/>1 mark for correct arrangement of F and G</p>                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |                      |   |   |   |   |



- b) 1 mark for correct position of switch to control all bulbs
- c) The bulb has blown / fused. **Too much electric current flowed through the bulb and the filament had melted,** causing open circuit. [1m]
- d) No. Plastic is an **electrical insulator.** [0.5m] The **circuit was open and no electric current flowed** [0.5m] through.

- 39) a) 3 rounds [1m]
- b) 1 mark for correct cross to indicate end of run



- c) **Light from light source travels in straight lines** where the light sensor **records 1000 units** [1m] when there is nothing in between. When a person run across, **light is blocked by the person,** so **0 units of light is detected** [1m] by the light sensor.

- 40) a) The **white solid** gained heat from the warmer surroundings and **melted into liquid.** [1m]
- b) X. His left hand felt cooler as he lost heat faster to material X as **X is a better conductor of heat.** [1m] As the white solid was in contact with X, **heat was transferred from the warm surroundings through material X to the white solid at a faster rate,** [1m] causing faster rate of melting.