

Name: _____ ()

Class: Pri 6 SY/C/G/SE/P

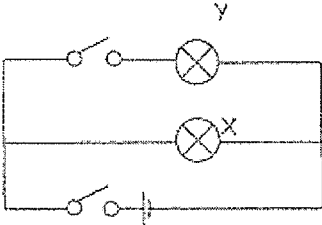
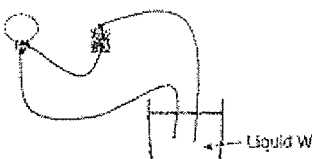
2021 SCGS PRI 6 SCIENCE PRELIMINARY EXAMS

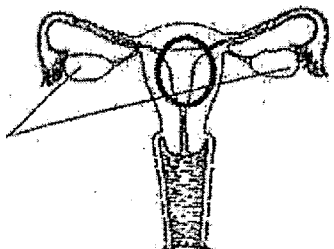
Part 1 (56m)

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

Part 2 (44m)

| S/N | Suggested Answers | | | | | | | | | | | | | | | | | | |
|---|--|-------|--|--|------------|------|-------|--|---|--|---|---|--|---|--|---|--|---|--|
| 29a | (i) parrot – E (ii) Dolphin – A (iii) Sheep- C (iv) python - F | | | | | | | | | | | | | | | | | | |
| 29b | Animal D has 4 legs but E does not. | | | | | | | | | | | | | | | | | | |
| 30a | Like poles of magnet facing each other , so they repel. | | | | | | | | | | | | | | | | | | |
| 30b | (i) Gravitational force/ gravity and magnetic force (ii) The globe will drop / move lower | | | | | | | | | | | | | | | | | | |
| 31a | A (given) B D C | | | | | | | | | | | | | | | | | | |
| 31b | <table border="1" style="width: 100%;"> <thead> <tr> <th>Statements</th> <th>True</th> <th>False</th> </tr> </thead> <tbody> <tr> <td>(i) B has more carbon dioxide compared to A.</td> <td style="text-align: center;">✓</td> <td></td> </tr> <tr> <td>(ii) D has more carbon dioxide compared to B.</td> <td style="text-align: center;">✓</td> <td></td> </tr> <tr> <td>(iii) B has more digested food compared to D.</td> <td></td> <td style="text-align: center;">✓</td> </tr> <tr> <td>(iv) D has more digested food compared to C.</td> <td style="text-align: center;">✓</td> <td></td> </tr> </tbody> </table> | | | | Statements | True | False | (i) B has more carbon dioxide compared to A. | ✓ | | (ii) D has more carbon dioxide compared to B. | ✓ | | (iii) B has more digested food compared to D. | | ✓ | (iv) D has more digested food compared to C. | ✓ | |
| Statements | True | False | | | | | | | | | | | | | | | | | |
| (i) B has more carbon dioxide compared to A. | ✓ | | | | | | | | | | | | | | | | | | |
| (ii) D has more carbon dioxide compared to B. | ✓ | | | | | | | | | | | | | | | | | | |
| (iii) B has more digested food compared to D. | | ✓ | | | | | | | | | | | | | | | | | |
| (iv) D has more digested food compared to C. | ✓ | | | | | | | | | | | | | | | | | | |
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| 32a | To find out if different surfaces affects the amount of frictional force. |
| 32b | Car S will stop first as Surface S is rougher than Surface P, so it has <u>more frictional force</u> / <u>more friction</u> between the car and the surface. |
| 33a | <ul style="list-style-type: none"> - One switch must be in series with BULB Y - One switch must be in series with the battery - Bulbs are in parallel (no switch in series with X) <p>Example:</p>  |
| 33b | <p>(i)</p>  <p>(ii) The bulb lights up</p> |
| 34a | Stretched string /pulled-back string/ pulled string |
| 34b | The <u>gravitational force</u> / <u>gravity</u> pulled it down/ downwards to P. |
| 34c | No. A heavier arrow means <u>more gravitational force</u> pulling it down, so it will travel a shorter distance. OR No. A heavier arrow needs to pull back the arrow <u>more</u> so that <u>more</u> potential energy can be <u>converted to more</u> kinetic energy to <u>move it as far</u> . |
| 35a | It makes it fair as the amount of air in the boxes will affect the results of the experiment, thus the amount/ volume of air in the boxes must be the same/similar/ constant. |
| 35b | B. B is warmer than C, and B has more moisture than A (0.5m). OR B has (air), warmth and moisture but A doesn't have moisture and C doesn't have warmth. |
| 35c | Any 2 suggestions: He could pack his jacket in a plastic bag and put Substance X. |

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| | <p>He could pack his jacket in a plastic bag and remove the air (vacuum-pack) the bag. He could place the jacket in a cold/cool place/ refrigerator/ cold store</p> |
| 36a | <p>(i) (ii)</p>  <p>Part P (Either one)</p> |
| 36b | Yes. The other ovary can still <u>produce/release eggs</u> . |
| 37a | 50 |
| 37b | Air has <u>no definite/ fixed volume</u> <i>Not accepted 'Air can be compressed' /not applicable to scenario given)</i> |
| 37c | Decrease. Air has <u>mass</u> and when some air has been removed, there will be less air and thus less mass in the container. |
| 38a | <u>(gravitational) potential</u> energy → <u>kinetic</u> energy → <u>heat</u> energy + <u>sound</u> energy |
| 38b | When the hole is bigger, <u>more sand</u> will drip/fall. <u>More sand</u> will have <u>more mass</u> and have <u>more kinetic energy</u> which is <u>converted to more sound energy</u> to make a louder sound. |
| 38c | Raise the pail higher OR Increase distance between the hole/ pail/ sand container and the plate/ floor. |
| 39a | <How adding fish <u>improved</u> the experiment?> - must show comparison Fish can provide <u>more / increase carbon dioxide</u> for more <u>faster photosynthesis</u> . |

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| 39b | The plants are at different distances away from the light source. OR The plants in different tanks did not receive the same amount of light |
| 39c | Any arrangement showing <u>equal distances between light and each of the 3 tanks clearly.</u> <Distances between light and each tank must be the same> |
| 39d | B. The plant in B received the <u>most light to carry out the most/ fastest photosynthesis to produce the most oxygen.</u> |
| 40a | Section A: Evaporation Section B: Condensation |
| 40b | <u>Water can gain more heat evaporate faster/ more.</u> OR <u>Water vapour can become hotter that it can condense more/ faster (on the metal sheet later).</u> <i>Note: Difference between 'water' and 'water vapour'</i> |
| 40c | Metal is a <u>better</u> conductor of heat than plastic AND Thus <u>water vapour can lose heat/ more faster (to sheet/ice) to condense faster.</u> |
| 40d | Ideas needed in answer: - Comparison on heat gain by water (when heater was in water and outside water) - resulting in faster / more evaporation - producing more water vapour - allowing for more condensation into water droplets <i>Example</i> If heater is in the water, the <u>water can gain more heat/ heat faster</u> than when heater is outside water so the water <u>can evaporate faster to produce more water vapour.</u> Hence more water will be collected in Section B as there is <u>more water vapour condensed</u> into water droplets |