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|---------------------|--------------|-------|
| Name: ( )           | Class:       | Date: |
| Parent's Signature: | Results: /50 | %     |

**Section A (30 pts)**

1. Daisy found a fern in her garden and it contains black structures labelled as part X as shown below.



Which one of the following living things reproduce in the same way as the fern?

- 1) apple tree                      2) chili plant  
3) mushroom                    4) green bean plant  
( )

2.

Eye colour is passed on from the parents to their child. The table below shows the eye colours of children A to F, their parents and their grandparents.

| Eye colour |       |        |        |             |             |
|------------|-------|--------|--------|-------------|-------------|
| Child      |       | Mother | Father | Grandmother | Grandfather |
| A          | Blue  | Brown  | Blue   | Brown       | Brown       |
| B          | Brown | Brown  | Blue   | Blue        | Brown       |
| C          | Brown | Brown  | Brown  | Brown       | Brown       |
| D          | Brown | Blue   | Brown  | Blue        | Brown       |
| E          | Blue  | Blue   | Blue   | Blue        | Blue        |
| F          | Blue  | Brown  | Brown  | Brown       | Brown       |

Which of the following can be supported by evidence from the table?

- (1) A child's eye colour is always the same as the grandmother's.  
(2) A child with blue eyes can have both parents with brown eyes.  
(3) A child with brown eyes can have both grandparents with blue eyes.  
(4) A child with brown eyes must have at least one parent with blue eyes.

( )





3.

Which two of the following are characteristics of seeds and fruits dispersed by animals?

- A. Flat and light
- B. Juicy fruits with hard seeds
- C. Small fruits with hair-like structures
- D. Surface of fruits covered with hooks

- (1) A and B
- (2) B and C
- (3) B and D
- (4) C and D

( )

4.

The table below shows how a pigeon, a platypus, a bat and a cat can be classified.

| Animal       |          |                   |            |
|--------------|----------|-------------------|------------|
| Lays eggs    |          | Does not lay eggs |            |
| Has feathers | Has hair | Can fly           | Cannot fly |
| Pigeon       | Platypus | Bat               | Cat        |

This classification table shows that \_\_\_\_\_.

- (1) a cat and a bat do not reproduce
- (2) a bat and a platypus are mammals
- (3) a pigeon can fly but a platypus cannot
- (4) a platypus lays eggs but a bat does not

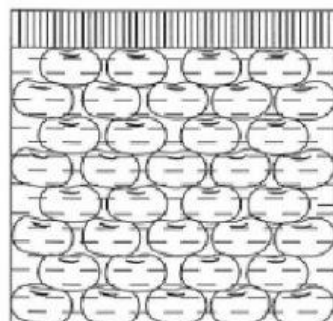
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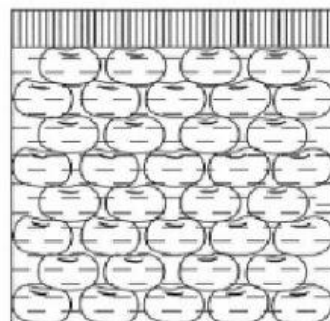


5.

The diagrams below show two jars in an experiment. Both jars contained green beans and tap water or boiled water. They were placed side by side in a classroom.



Jar A



Jar B

After a day, some of the green beans in jar A germinated but none of those in jar B did. Which of the following is the best explanation?

- (1) The water in jar B had very little air in it.
- (2) The seeds in jar B could not make food.
- (3) The space in jar B was not enough for the seeds to germinate.
- (4) The water in jar B was too hot for the seeds to germinate.

( )

6. Here are three processes involved in the sexual reproduction in plants.

- A Pollination
- B Fertilisation
- C Production of reproductive cells

Which statement is correct?

- (2) C occurs in the anthers only.
- (1) A and B occurs in the ovary.
- (3) B occurs in both the male and female reproductive parts.
- (4) A occurs between the male and female reproductive parts.

( )





**Section B: Open-ended questions (20 pts)**

7. Insect G visits the flowers of plant F



a) Write one characteristic which help the flower increase the chance to be pollinated by insect G

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b) What happen to Part C of the flower after fertilisation?

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c) Why does the insect G visit flower?

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d) How does plant F benefit from insect G?

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e) What does "pollination" mean? (explain in English)

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\*\*\*\*\* End of Paper \*\*\*\*\*

