

Name: _____ (        )	Class: _____	Date: _____
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**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 E, 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.

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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

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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

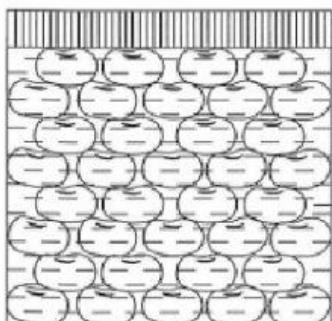
This classification table shows that \_\_\_\_\_.

- (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

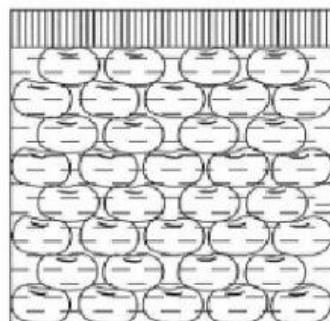
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5.

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.

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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.

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**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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