

Science Department

Mock Exam

Term 3 - 2023/2024

Grade: 6 General

School Name: Al Foal 1398

Part 1

15 Questions- Multiple choice

Q1. All of the following are advantages of asexual reproduction **EXCEPT**

- a. the population can increase rapidly
- b. only one parent is needed
- c. less time and energy as you don't need a mate
- d. Harmful mutation will be passed asexually reproduced offspring

Q2. Hydras are organisms that live in freshwater environments. They have a tubelike body, and a mouth are stinging tentacles that help to capture food. Depending on the conditions, hydras can reproduce sexually or asexually.



Based on your observations, which statement best explains what is happening to the hydra in the figure above?

- a. The hydra is reproducing asexually by budding a new hydra
- b. The hydra is reproducing asexually by splitting in two
- c. The hydra is reproducing sexually by grafting to another hydra
- d. The hydra is reproducing asexually by releasing sex cells into the water

Q3. The joining of an egg cell and a sperm cell is called

- a. stability
- b. adaptation
- c. asexual reproduction
- d. fertilization

Q4. Which of the following best describes the **cause-and-effect** relationship between **courtship behaviors** and successful reproduction?

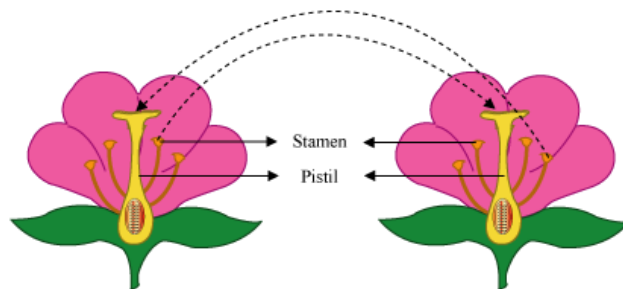


- | | |
|-----------|--|
| a. | Courtship behaviors protect the offspring, and all offspring can reproduce |
| b. | Courtship behaviors help animals find mates which can lead to successful reproduction |
| c. | Courtship behaviors help animals survive in their environment long enough to reproduce |
| d. | Courtship behaviors help animals to compete physically with same species. |

Q5. The growth of a plant toward or away from light.

- | | |
|-----------|---------------|
| a. | thigmotropism |
| b. | phototropism |
| c. | gravitropism |
| d. | hydrotropism |

Q6. A tree produces seeds in pods when wind-born pollen from another tree of the same species reaches the flowers. Each seed contains genetic information so the seed can grow into an adult tree. Which do you predict would be the effect of this process?



- | | |
|-----------|---|
| a. | The tree produces a large number of genetically diverse offspring |
| b. | The tree produces a large number of genetically identical offspring |
| c. | The tree produces a small number of offspring that are identical to the female parent |
| d. | The tree produces a small number of offspring that are identical to the male parent |

Q7. which of the following is **Not** an environmental factor that would affect the hamster's growth?



- a. the amount of food that hamster is given
- b. Gene for fur color
- c. the amount of time spent on the exercise wheel
- d. Interactions with other hamsters

Q8. In order to attract a mate, some animals such as the white female gypsy moth shown in the picture release chemical substance called



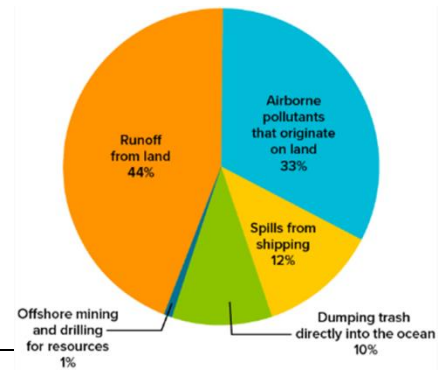
- a. Pheromones
- b. perfume
- c. Phenomena
- d. Physical

Q9. In the figure below, the trait of the thumbs might be expressed as curved or straight. How a trait appears or is expressed is the trait's



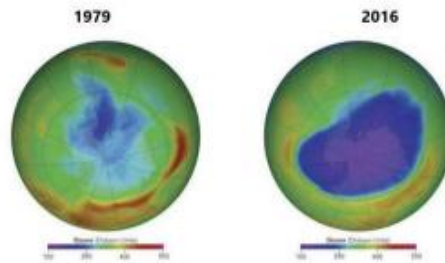
- a. Phenotype
- b. Genotype
- c. Genes
- d. Alleles

Q10. The pie chart below shows the proportion of different sources of ocean pollution caused by humans. Which source shows the highest amount of pollution?



- a. Airborne pollutants on land
- b. Dumping trash into the ocean
- c. Offshore mining and drilling
- d. Runoff from land

Q11. Compare the ozone layer in 1979 (left) to the ozone layer in 2016 (right)




Which of the following reduces the ozone layer in the upper atmosphere?

- a. Photochemical smog
- b. CFCs
- c. Acid precipitation
- d. Volcanic eruption

Q12. The image below shows a forest that was removed. Which of the following is **Not** an impact of deforestation?



- a. Endangerment or Extinction of a species
- b. Loss of animal habitats
- c. Rate of photosynthesis Increase
- d. more carbon dioxide remains in the atmosphere

Q13. Which one protect the developing seed in nonflowering plants?	
a.	anther
b.	cone
c.	sepal
d.	pistil
Q14. The Great Pacific Garbage Patch is a large area of floating trash in the Pacific Ocean that is caused, in part, by ocean currents. Which is a step people can take to minimize its effect on Earth's water?	
	
a.	use satellites to measure its size
b.	measure ocean currents to predict where it will go
c.	design new and better ways to recycle
d.	work harder to prevent oil spills.
Q15. Which is NOT a result of acid precipitation?	
a.	It can harm fish and other organisms.
b.	It can pollute soil killing trees and other plants.
c.	It can increase the chance of asthma attacks.
d.	It can damage buildings and statues made of some types of rocks.

Part 2

5 Questions- Written questions

Q1. write down each pictures the environmental factors that affect how plants grow (using one of this factors) and

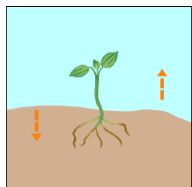
Phototropism – thigmotropism - gravitropism

1.a



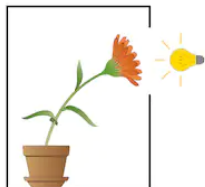
_____ The response of a plant to touch

1.b





_____ The response of a plant to gravity

1.c



_____ The response of a plant to light


Q2. The table below shows the possible phenotypes and genotypes for both round and wrinkled seeds.

Phenotypes (observed traits)	Genotypes (alleles of a gene)
	<input type="text"/> (RR)
Round	Heterozygous <input type="text"/>
	<input type="text"/>
Wrinkled	

2.a complete the above table by the correct genotypes.


2.b Across between two heterozygous pea plants with round seed produced 5,474 round seeds and 1,850 wrinkled seeds. What is the ratio of round to wrinkled seeds?

Q3. Use the punnett square below to complete a cross between a female fruit fly with straight wings (bb) and a male fruit fly with curly wings (BB)



Straight
Wings bb

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<div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto;"></div>



Curly
Wings BB

3a. what phenotypes are possible for the offspring of the cross?

3b. what are the genotypes of the offspring?

3c. what is the ratio of offspring that will have curly wings to straight wings?

Q4. Study the figure below.



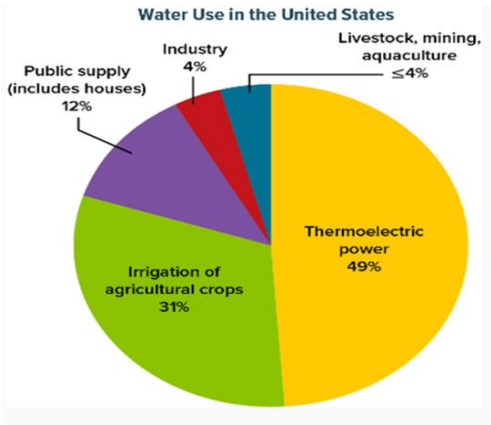
Identify 3 ways in which this community is helping reduce air pollution:

1.

2.

3.

Q5. Answer the following questions using the pie chart.



5a. What percent of water is used to produce electricity?

5b. What is the second largest sector for water use?

5c. As human population increases, predict what the impact will be on water usage.