

Science Department

Mock Exam

Term 3 - 2023/2024

Grade: 5

Copy N (1)

Levels (Bloom's Taxonomy)	Difficulty level	Symbol	Percentage
Remember	Easy- Medium	E,M	20
Understand	Easy- Medium	E,M	20
Apply	Easy- Medium-Difficult	E, M, D	20
Analyze	Easy- Medium-Difficult	E, M, D	20
Evaluate	Difficult	D	10
Create	Difficult	D	10

Part (1) Multiple Choice

Q1.) ____ is the evaporation of water from a plant's leaves.



- a. transpiration
- b. storage
- c. water absorption
- d. nutrient evaporation

Q2. Select the factor that is NOT abiotic.

- a. rocks
- b. air
- c. animals
- d. water

Q3. Explain the role of decomposers in an ecosystem.



- a. Decomposers are organisms that consume only plant material.
- b. Decomposers are organisms that break down plant and animal matter.
- c. Decomposers are organisms that are introduced to a new ecosystem and cause harm to it.
- d. Decomposers are organisms that are able to produce their own food.

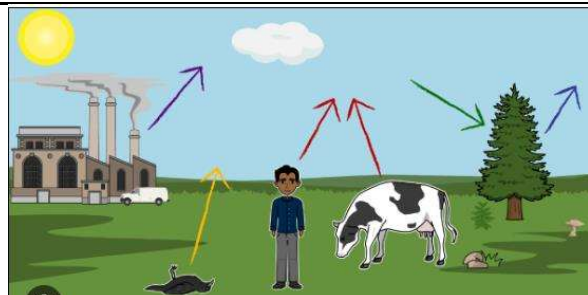
Q4. Read the sentence below. Then, infer which of Earth's systems are interacting:

The heavy floods eroded the riverbank.



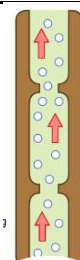
- a. hydrosphere and atmosphere
- b. atmosphere and geosphere
- c. geosphere and biosphere
- d. hydrosphere and geosphere

Q5. All living things use energy and release gas as a waste product. Identify the cycle that explains the circulation of these gases?



- a. Water cycle
- b. Oxygen-carbon cycle
- c. Nitrogen cycle
- d. Hydrogen cycle

Q6. Name the tissue responsible for the transport of water and nutrients from the roots to all parts of the plant.



- a. phloem
- b. stomata
- c. xylem
- d. guard cells

Q7. Predict what would happen to the population of rabbits if the fox population in a forest ecosystem increased?



- a. It would decrease.
- b. It would stay the same.
- c. It would increase.
- d. Only the fox population will be affected.

Q8. Clarify how decomposers help humans manage the amount of food waste they produce?



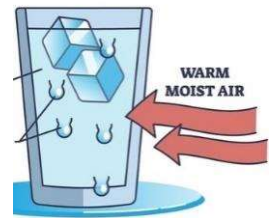
- a. Decomposers help food to ripen.
- b. Decomposers help to break down food waste, like in compost heaps.
- c. Decomposers cause food to get moldy.
- d. Decomposers absorb the water in food waste.

Q9. Suggest what happens when water evaporates from a puddle on the street.



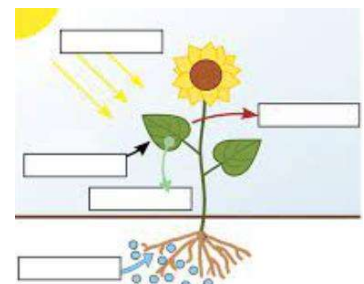
- a. It is absorbed by the biosphere.
- b. It flows into a nearby stream or river.
- c. It sinks into the geosphere.
- d. It rises into the atmosphere.

Q10. Provide the correct definition for the part of the water cycle in which water vapor gas changes to a liquid.



- a. transpiration
- b. condensation
- c. runoff
- d. evaporation

Q11. Choose the material used by plants to make food that can be found in the air?



- a. carbon dioxide
- b. oxygen
- c. nitrogen
- d. nutrients

Q12. Describe the role of predators in an ecosystem.



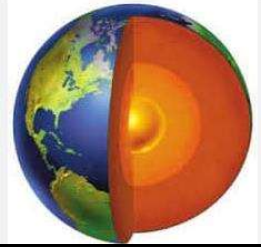
- a. Predators are herbivores.
- b. They increase the size of prey populations.
- c. They help control the size of prey populations.
- d. Predators do not have a role in an ecosystem.

Q13. How would you differentiate between fungi and plants?



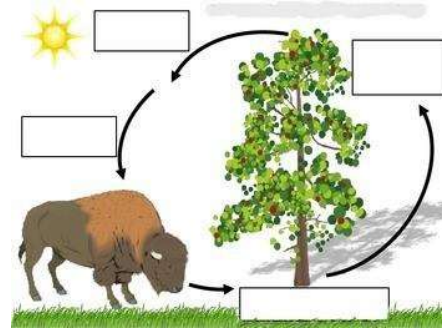
- a. Fungi are producers and plants are consumers.
- b. Fungi are herbivores and plants are omnivores.
- c. Plants are producers and fungi are consumers.
- d. Plants are herbivores and fungi are omnivores.

Q14. Which list best describes the components of the geosphere?



- a. nitrogen, oxygen, water vapor, carbon dioxide and other gases
- b. solid rock, molten rock, soil, landforms
- c. water in all three states
- d. plants, animals, humans, decomposers

Q15. Compare the intake and release of gases by producers and animals.



- a. Animals take in carbon dioxide and release oxygen. Producers take in oxygen and release carbon dioxide.
- b. Producers take in nitrogen and release oxygen. Animals take in oxygen and release nitrogen.
- c. Producers take in hydrogen and release nitrogen. Animals take in nitrogen and release oxygen.
- d. Producers take in carbon dioxide and release oxygen. Animals take in oxygen and release carbon dioxide.

Q16. What would the result be if plants grow too close together?



- a. The plants would compete for the same resources.
- b. The plants would grow quickly.
- c. The plants would receive more sunlight.
- d. The plants' growth would not be affected.

Q17. Predict the outcome if the prey population in an ecosystem increased.



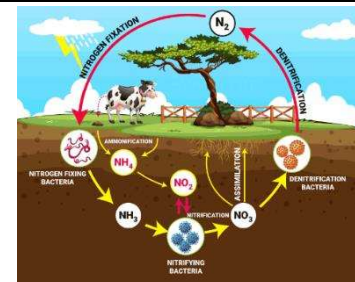
- a. The producer population will not be affected.
- b. The producer population will decrease.
- c. The number of decomposers will increase.
- d. The producer population will increase.

Q18. Describe what would happen when an invasive species is introduced into an ecosystem.



- a. They do not affect any part of the ecosystem.
- b. They affect the amount of matter in an ecosystem.
- c. They can harm the environment, the economy and even human health.
- d. They affect the amount of energy in an ecosystem.

Q19. Air is made up of 78% nitrogen, but few living things can use nitrogen gas. Select a suitable explanation for how nitrogen is made available to living things.



- a. Nitrogen gas is produced during photosynthesis.
- b. Living things do not need nitrogen to survive.
- c. Nitrogen gas is fixed and then absorbed by plants. When animals eat plants, they take in nitrogen stored in plants.
- d. Nitrogen gas condenses and is then absorbed by living things.

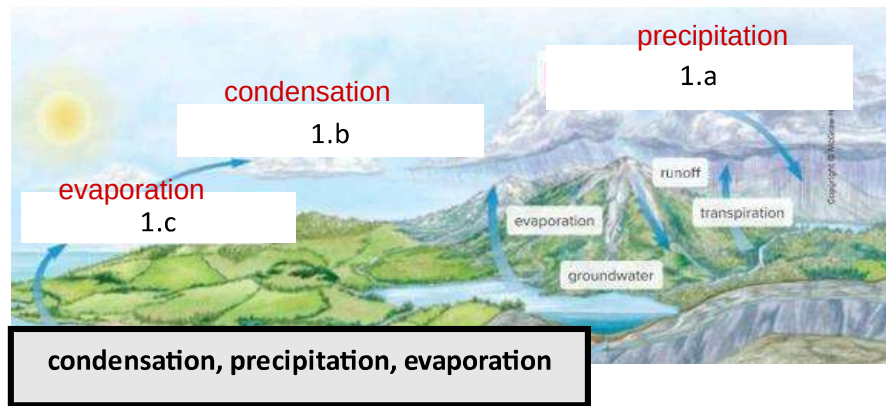
Q20. How could you identify whether a consumer is an omnivore?



- a. It would consume both plants and animals.
- b. It would consume plants only.
- c. It would consume animals only.
- d. It would consume prey only.

Part (2): Writing Questions

Q1. Study the image below to answer the questions that follow.



a. Label 1a, 1b and 1c selecting from the words found in the box above.

Q2. Study the image below and answer the questions:

2.a Identify the process demonstrated in the above image:

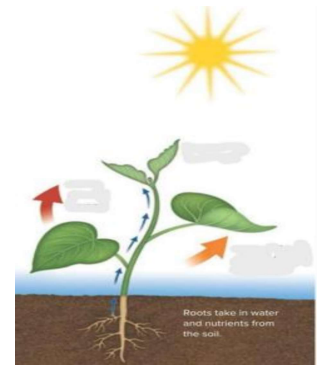
.....Photosynthesis.....

2.b Name the gas used during this process:

.....Carbon dioxide.....

2.c Name the gas released after the process:

.....Oxygen.....



Q3. Use the image below to answer the questions:

3a. List one factor from this ecosystem that is part of the geosphere:

.....soil / rock / mountain.....

3b. List one factor from this ecosystem that is part of the biosphere:

.....plants / Gazal.....

3c. List one solid form of the hydrosphere that you can observe in the image:

.....Ice cap.....



Q4. The table shows the average annual rainfall in California. Use the data in the table and the map, to answer the questions.

4a. Which city experienced the highest rainfall?.....San Francisco.....

4b. Which city experienced the lowest rainfall?.....San Diego.....

4c. Compare the rainfall in the northern and southern parts of the state:

.....Cities in the northern part of the state receive more rainfall than southern part.....



Q5. Study the image and answer the questions based on it.



5a. Identify two biotic factors in the image:

..... Cheetah, The deer

5b. Describe the relationship between the two animals in the image:

..... Predator and prey

5c. Write down the type of consumer that each animal represents.

Cheetah (..... Carnivore) & The deer (..... Herbivore

Q6. Khaled is observing a lake. He wonders how the water in the lake is included in the water cycle. Place the stages of the water cycle in order:

(3) Large water droplets fall to the ground from the clouds.

(2) Water vapor cools and condenses on dust particles forming clouds.

(1) Energy from the sun causes the water in the lake to evaporate. ⁴ Water droplets combine in the clouds to form larger droplets.

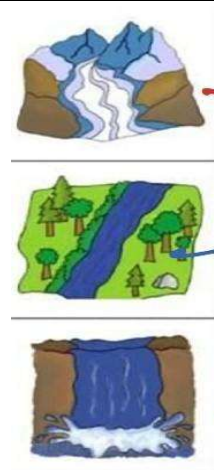


Q7. Explain three ways in which the hydrosphere interacts with the geosphere:

7a: Erosion

7b: Weathering

7c: When water precipitates and fall onto the land.



Q8. Study the image below before answering the questions:

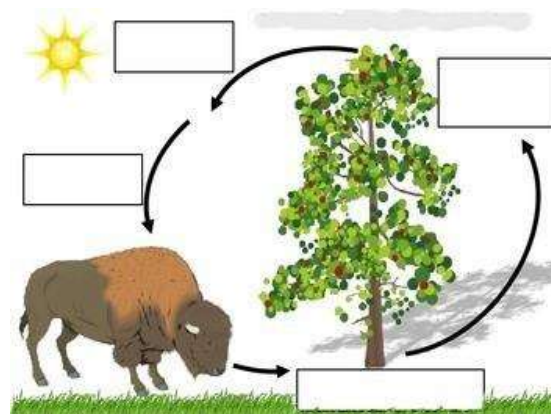
8a. Identify the gases circulated in this cycle:

..... Oxygen and carbon dioxide

8b. Name the gas that plants release during photosynthesis?

..... Oxygen

8c. Provide the name of the gas that animals release which is required for photosynthesis:..... Carbon dioxide



Q9. The image below shows Earth's major systems.



9a. One of the Earth's system that represent all of Earth's living things :..... Biosphere

9b. All of Earth's liquid, solid and gaseous water makes up the: Hydrosphere

9c. The layer of gases surrounding Earth is called the: Atmosphere

Q10. An organism that is introduced to a new ecosystem and causes harm is an invasive species.



10a. Identify the invasive species shown in the image above: Cane toad

10b. Explain why this species was introduced to Australia in the 1930's:

Because a type of beetle was eating sugar cane crops.

10c. Describe one way in which this species caused harm to the ecosystem:

Cane toads poisoning and competing with native species.

***** End of the Exam*****