



Integrated Sciences

20
25

الصف الأول الثانوي الأسبوع

③

Weekly

إعداد ومراجعة

مكتب تنمية مادة العلوم

Choose the correct answer:

1-How do physical processes such as precipitation and evaporation affect nutrient cycles?

- A. They increase the availability of nutrients in the soil and minimize the loss of nutrients to the air
- B. Lead to the transfer of nutrients from soil to water bodies
- C-Decreases the concentration of nutrients in the soil and increases their accumulation in the atmosphere
- D- It leads to the accumulation of nutrients in the soil and minimizes their transport through water

2-limestone rocks and dolomites are chemically similar in containing elements

- A-Carbon, nitrogen and phosphorus
- B-Carbon, oxygen and calcium
- C-Oxygen, hydrogen, and magnesium
- D-Nitrogen, carbon, and hydrogen

3-Drought means a lack of water in the environment and has a negative effect on the concentration of many nutrients, but it has a positive effect on the concentration of

- A-Organic carbon
- B-Inorganic phosphorus
- C-Organic nitrogen
- D-Inorganic carbon

4- What are the main chemical reactions in the carbon and nitrogen cycles?

- A-Cellular respiration, photosynthesis, and nitrification
- B-Photolysis, nuclear fusion, and mineralization
- C. Photosynthesis, biodegradation, and filtration
- D-Cellular respiration, nuclear fusion, and precipitation

5- Plants absorb some ammonia and nitrate salts to make

- A-carbohydrates
- B-fats
- C-proteins
- D-bone deposits

6-Carbon is transported from limestone rocks to the atmosphere by the process of

- A-Combustion
- B-Chemical weathering
- C-Aerobic decomposition
- D-Thermal emission

7-What is the main chemical reaction of photosynthesis?

- A-Conversion of oxygen to water
- B-Conversion of solar energy to chemical energy
- C-Converting carbon dioxide to oxygen
- D-Converting water to carbon dioxide

8- To synthesize protein, the plant absorbs any or both of the following

- A- Oxygen gas and nitrate salts
- B- Ammonia gas and carbonate salts
- C-Nitrogen gas and calcium salts
- D-Ammonia gas and nitrate salts

9- Which of the following nutrients is needed in large quantities by the plant to produce energy-carrying compounds?

- A-Iodine
- B-Magnesium
- C-Phosphorus
- D-Chlorine

10- Nitrite bacteria convert ammonia into

A- Nitrate compounds

B- Nitrogen gas

C- Nitrite compounds

D- Nitric acid

11- Nitrate bacteria convert

**A- nitrate compounds into nitrite compounds
nitrate compounds**

B- nitrite compounds into

**C- ammonia gas into nitrite compounds
ammonia gas**

D- nitrite compounds into

**12- convert some of the nitrates in the soil into nitrogen gas or
nitrous oxide (N₂O).**

A- Nitrifying bacteria

B- Denitrifying bacteria

C- Photosynthetic bacteria

D- De-photosynthetic bacteria

Essay Questions:

13- What are the main chemical reactions in carbon and nitrogen cycles?

14-Write an example of how some human activities affect the nitrogen cycle.

15-What is the importance of nutrients in maintaining healthy ecosystems?

16- What is the effect of precipitation and evaporation on nutrient cycles?

17-(Nutrients act as nutrients to support the life of an organism) Explain

18- Write a source for the following nutrients:

- Carbon

- Nitrogen

- Phosphorus