

Advanced Agricultural Science Concepts

Agriculture · Answer Key · 8 Questions

1. Which process involves the conversion of atmospheric nitrogen into ammonia by bacteria such as Rhizobium living in root nodules?

A) Nitrogen fixation

B) Denitrification

C) Nitrification

D) Assimilation

2. In soil science, which texture class contains the highest percentage of sand particles, leading to high drainage but low nutrient retention?

A) Silty clay

B) Sandy loam

C) Loamy sand

D) Clay loam

3. What is the primary function of the 'stomata' located on the underside of plant leaves in the context of agricultural crop health?

A) Absorption of soil minerals

B) Gas exchange and transpiration

C) Production of chlorophyll

D) Structural support for the leaf

4. Which crop nutrient is primarily responsible for vigorous leaf growth and is a key component of chlorophyll molecules?

A) Potassium

B) Phosphorus

C) Calcium

D) Nitrogen

5. What agricultural term describes the intentional practice of growing two or more crops in the same field in a specific sequence to improve soil health?

A) Monoculture

B) Crop rotation

C) Hydroponics

D) Permaculture

6. Which Australian agricultural zone is specifically characterized by high-input commercial farming and significant irrigation infrastructure?

A) Intensive farming zone

B) Arid rangelands

C) Remote pastoral zone

D) Dryland cropping zone

7. What is the scientific name for the symbiotic relationship between fungi and plant roots that increases the surface area for nutrient uptake?

A) Rhizosphere

B) Mycorrhizae

C) Xylem

D) Phloem

8. In livestock management, which measurement represents the maximum number of animals that a specific area of pasture can sustain indefinitely without degradation?

A) Stocking density

B) Carrying capacity

C) Forage yield

D) Biomass index