

Advanced Agricultural Science Concepts

Agriculture · Practice Test · 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