

1. What is the definition of irrigation?

- a) The process of draining excess water from agricultural fields
- b) The application of water to land to assist in the growth of crops
- c) The process of aerating soil to improve crop yield
- d) The removal of salts from soil for better crop growth

Answer: b) The application of water to land to assist in the growth of crops

Explanation: Irrigation involves supplying water to crops to supplement natural rainfall, ensuring adequate moisture levels for optimal growth.

2. Why is irrigation necessary in agriculture?

- a) To reduce soil erosion
- b) To increase crop yield
- c) To control pests and diseases
- d) To improve soil fertility

Answer: b) To increase crop yield

Explanation: Irrigation provides crops with the necessary water for growth, especially in areas with insufficient rainfall, leading to higher yields.

3. What is a disadvantage of irrigation?

- a) Increased soil salinity
- b) Reduced crop growth

- c) Enhanced nutrient uptake by plants
- d) Decreased water consumption

Answer: a) Increased soil salinity

Explanation: Over-irrigation can lead to the accumulation of salts in the soil, which can negatively impact crop growth and soil fertility.

4. Which type of irrigation method delivers water directly to the root zone of plants?

- a) Surface irrigation
- b) Sprinkler irrigation
- c) Subsurface irrigation
- d) Drip irrigation

Answer: d) Drip irrigation

Explanation: Drip irrigation involves the slow and precise application of water directly to the root zone of plants, minimizing water wastage and optimizing water use efficiency.

5. What is the duty of water in irrigation?

- a) The amount of water required to cover one hectare of land with one meter depth
- b) The percentage of water lost due to evaporation during irrigation
- c) The maximum allowable water level in irrigation canals
- d) The frequency of water application in irrigation

Answer: a) The amount of water required to cover one hectare of land with one meter depth

Explanation: Duty of water refers to the volume of water required to cover a unit area of land to a specific depth, typically expressed in cubic meters per hectare.

6. What factor primarily affects the duty of water in irrigation?

- a) Soil type
- b) Crop type
- c) Climate
- d) Water source

Answer: a) Soil type

Explanation: The soil's infiltration rate, texture, and water retention capacity significantly influence the amount of water needed for irrigation, thus affecting the duty of water.

7. Which irrigation method is most suitable for water-saving and reducing evaporation loss?

- a) Surface irrigation
- b) Sprinkler irrigation
- c) Subsurface irrigation
- d) Furrow irrigation

Answer: b) Sprinkler irrigation

Explanation: Sprinkler irrigation delivers water through pressurized systems, allowing for precise application and reducing evaporation loss compared to surface methods.

8. What is consumptive use in relation to irrigation?

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- a) The amount of water lost through seepage
- b) The total amount of water applied to the field
- c) The amount of water consumed by crops through transpiration and evaporation
- d) The total amount of water stored in reservoirs

Answer: c) The amount of water consumed by crops through transpiration and evaporation

Explanation: Consumptive use refers to the water that crops utilize for growth through transpiration and evaporation from the soil surface.

9. What is the principal objective of crop rotation in irrigation agriculture?

- a) To maximize water usage efficiency
- b) To prevent soil erosion
- c) To control pests and diseases
- d) To improve soil fertility

Answer: d) To improve soil fertility

Explanation: Crop rotation helps replenish soil nutrients, control pests and diseases, and improve soil structure, leading to better crop yields and overall soil health.

10. Which soil characteristic indicates its ability to retain water against gravitational forces?

- a) Wilting coefficient
- b) Field capacity
- c) Bulk density
- d) Soil pH

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Answer: b) Field capacity

Explanation: Field capacity represents the maximum amount of water a soil can hold against gravity after excess water has drained away, providing an indication of its water retention capacity.