

Plant Physiology Quiz PDF

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Which process in plants involves the conversion of glucose into energy?

- Photosynthesis
- Transpiration
- Respiration
- Germination

Which plant hormone is primarily involved in promoting cell elongation?

- Ethylene
- Cytokinin
- Auxin
- Abscisic acid

What is the primary function of the xylem in plants?

- Transport of nutrients
- Transport of water
- Photosynthesis
- Respiration

Explain the role of chlorophyll in the process of photosynthesis.

Describe the role of mitochondria in plant respiration and energy production.

Which organelle is known as the powerhouse of the cell, crucial for respiration?

- Chloroplast
- Mitochondria
- Nucleus
- Ribosome

Discuss the importance of transpiration in plant physiology.

Which of the following are essential micronutrients for plants? (Select all that apply)

- Iron
- Zinc
- Copper
- Magnesium

Which plant hormones are involved in regulating plant growth? (Select all that apply)

- Auxins
- Gibberellins
- Cytokinins
- Ethylene

What is the main product of the Calvin cycle in photosynthesis?

- Oxygen
- Glucose
- ATP
- NADPH

What type of tropism is a plant exhibiting when it grows towards light?

- Gravitropism
- Thigmotropism
- Phototropism
- Hydrotropism

Which processes are involved in plant responses to environmental stimuli? (Select all that apply)

- Phototropism
- Gravitropism
- Thigmotropism
- Hydrotropism

How do plants adapt to drought conditions at the physiological level?

What are the components of water potential in plants? (Select all that apply)

- Solute potential
- Pressure potential
- Gravitational potential
- Osmotic potential

Describe how plant hormones interact with environmental cues to regulate growth.

What is the primary pigment responsible for capturing light energy in photosynthesis?

- Carotenoids
- Chlorophyll
- Anthocyanins
- Xanthophylls

Which of the following is a macronutrient essential for plant growth?

- Iron
- Zinc
- Nitrogen
- Manganese

Explain the process of nutrient uptake in plant roots.

Which of the following are factors affecting photosynthesis? (Select all that apply)

- Light intensity
- Soil pH
- Carbon dioxide concentration
- Temperature

Which of the following are stages of plant growth and development? (Select all that apply)

- Germination
- Vegetative growth
- Pollination
- Flowerin