Control & Coordination Overview

Multiple Choice Questions (MCQs) on Control and Coordination in Plants

1. Which of the following is a growth response towards light?
    - a) Geotropism
    - b) Phototropism
    - c) Hydrotropism
    - d) Chemotropism
2. The growth response of roots towards gravity is called:
    - a) Positive phototropism
    - b) Negative geotropism
    - c) Positive geotropism
    - d) Negative phototropism
3. Which hormone is primarily responsible for cell elongation in plants?
    - a) Cytokinin
    - b) Gibberellin
    - c) Auxin
    - d) Ethylene
4. The non-directional movement of Mimosa pudica leaves in response to touch is known as:
    - a) Phototropism
    - b) Thigmonasty
    - c) Seismonasty
    - d) Chemotropism
5. Which plant hormone promotes seed dormancy and helps plants withstand drought?
    - a) Auxin
    - b) Gibberellin
    - c) Abscisic acid
    - d) Ethylene
6. The hormone responsible for the ripening of fruits is:
    - a) Auxin
    - b) Gibberellin
    - c) Ethylene
    - d) Cytokinin
7. The movement of plant roots towards moisture is called:
    - a) Phototropism
    - b) Geotropism
    - c) Hydrotropism
    - d) Chemotropism
8. Which of the following is an example of chemotropism?
    - a) Growth of pollen tubes towards ovules
    - b) Closure of Venus flytrap leaves
    - c) Folding of Mimosa pudica leaves
    - d) Growth of roots towards gravity
9. Gibberellins are involved in:

    - a) Inhibiting growth
    - b) Promoting fruit ripening
    - c) Breaking seed dormancy
    - d) Delaying leaf senescence
10. The receptor for a plant hormone that influences gene expression is typically located:
    - a) On the cell surface
    - b) In the chloroplast
    - c) Inside the cell
    - d) In the cell wall
11. Which plant hormone is known for delaying leaf senescence?
    - a) Auxin
    - b) Cytokinin
    - c) Ethylene
    - d) Abscisic acid
12. The rapid folding of leaves in response to mechanical stimuli is called:
    - a) Phototropism
    - b) Thigmonasty
    - c) Geotropism
    - d) Chemotropism
13. Which hormone is involved in promoting stem elongation and flowering?
    - a) Abscisic acid
    - b) Ethylene
    - c) Gibberellin
    - d) Cytokinin
14. The signal transduction pathway in plant hormone action often involves:
    - a) DNA replication
    - b) Protein synthesis
    - c) Second messengers
    - d) Lipid metabolism
15. Which plant hormone helps in the closure of stomata during water stress?
    - a) Auxin
    - b) Cytokinin
    - c) Abscisic acid
    - d) Ethylene

Answer Key

1. b) Phototropism
2. c) Positive geotropism
3. c) Auxin
4. b) Thigmonasty
5. c) Abscisic acid
6. c) Ethylene
7. c) Hydrotropism
8. a) Growth of pollen tubes towards ovules
9. c) Breaking seed dormancy
10. c) Inside the cell
11. b) Cytokinin
12. b) Thigmonasty
13. c) Gibberellin
14. c) Second messengers
15. c) Abscisic acid