


PART II

MULTIPLE CHOICE QUESTIONS
UNDERLINE THE MOST APPROPRIATE ANSWER.

01. Which one of the following statements about plant hormones is false?
- a. Abscisic acid generally promotes growth.
 - b. Gibberellins promote cell elongation
 - c. Cytokinins promote cell division
 - d. Ethylene contributes to the aging of plants.
02. Which one of the following statements is not a direct function of either auxin or gibberellins?
- a. inducing senescence and ripening.
 - b. producing apical dominance
 - c. producing positive geotropism in roots
 - d. stimulating cell division
03. Short-day plants
- a. are the same as long-day plants
 - b. flower when exposed to photoperiods less than the critical value.
 - c. do not have a critical photoperiod
 - d. all these are correct.
04. After some time, the tip of a plant that has been forced into a horizontal position grows upwards. This phenomenon is related to
- a. Light.
 - b. gibberellin production by stem.
 - c. auxin production by roots.
 - d. Auxin movement toward the lower side of stem.
05. If the tip of a coleoptile is cut and placed on the stem as follows;
The shoot just below the cut edge will
- a. bend, but only in extremely intense light.
 - b. bend to the left in the dark
 - c. bend to the right in the dark
 - d. bend in the light but not in the dark.
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- The diagram shows a vertical stem with a rectangular cut at the top. A small, upright, rectangular piece representing the cut tip is placed on top of the stem, slightly to the right of the center. This illustrates the experimental setup for question 05.
06. When growing plants in culture, auxin is used to stimulate cell enlargement. Which hormone has to be added to stimulate cell division?
- a. gibberellin
 - b. abscisic acid
 - c. ethylene
 - d. cytokinin.
07. Which of the following statements concerning flowering is false?
- a. Flowering in short-day plants is controlled by phytochrome.
 - b. As a rule, long-day plants flower in the summer.
 - c. Long-day plants flower in response to long days, not short nights.
 - d. Flowering in day-neutrals is not influenced by day length.

08. Phytochrome
- is a plant protein that is involved in electron transport
 - is important in apical dominance.
 - is involved in phototropic responses of plants.
 - is a pigment that responds to the presence of light.
09. The winding of Morning glory stems around a support is a result of
- geotropism
 - phototropism
 - thigmotropism
 - epinasty.
10. The hormones that trigger mobilization of stored food in germinating cereal grains are
- auxins
 - gibberellins
 - cytokinins
 - ethylene.
11. Axillary buds near the base of a shoot may grow faster than axillary buds near the shoot apex because they are
- closer to a cytokinin source.
 - further away from an auxin source.
 - both (a) and (b).
 - further away from an abscisic acid source.
12. A detached leaf floated in water containing a particular hormone did not turn yellow. Water would have contained
- gibberellin
 - abscisic acid
 - auxin
 - cytokinin.
13. Auxin in plants are known to affect all of the following phenomena except
- geotropism of roots
 - maintenance of dormancy
 - inhibition of lateral buds.
 - development of fruit.
14. In general plant hormones differ from animal hormones in that
- the cells that make the hormone have many important functions in addition to making hormone.
 - they are not produced in separate hormone-producing organs.
 - they are predominantly involved in regulating growth and development.
 - All of the above are correct.
15. Which of the following does not reduce the level of P_{fr} form of phytochrome?
- exposure to far-red light.
 - exposure to red light
 - long dark period.
 - destruction of phytochrome.