SAINIK SCHOOL GOPALGANJ
ASSIGNMENTS
BIOLOGY (044)

Chapter 15: Plant Growth and Development **Class: XI**

General Instructions

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1. All questions are compulsory.
2. Question1 to 10 is multiple choice questions.
3. Question 11 to 15 is short answer questions.
4. Question 16 to 20 is long answer questions

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1.Fruit and leaf drop at early stages can be prevented by the application of

a) cytokinins
b) ethylene
c) gibberellic acid
d) auxins

2. The *Avena* curvature is used for bioassay of

a) Ethylene
b) ABA
c) IAA
d) GA_3

3. You are given a tissue with its potential for differentiation in artificial culture. Which of the following pairs of hormones would you add to the medium to secure shoots as well as roots?

a) Gibberellin and abscisic acid
b) Auxin and abscisic acid
c) Auxin and cytokinin
d) IAA and gibberellin

4. Dr. F. Went noted that if coleoptile tips were removed and placed on agar for one hour, the agar would produce a bending when placed on one side of freshly-cut coleoptile stumps. Of what significance is this experiment?

a) it demonstrated polar movement of auxins
b) it supports the hypothesis that IAA is auxin
c) it is the basis for the quantitative determination of small amounts of growth-promoting substances
d) it made possible the isolation and exact identification of auxin

5. During seed germination, its stored food is mobilized by

a) ethylene

b) ABA

c) cytokinin

d) gibberellin

6. A few normal seedlings of tomato were kept in a dark room. After a few days, they were found to have become white-colored like albinos. Which of the following terms will you use to describe them?

a) Defoliated

b) Etiolated

c) Embolised

d) Mutated

7. The pineapple which under natural condition is difficult to blossom has been made to produce fruits throughout the year by application of

a) NAA, 2, 4-D

b) phenylacetic acid

c) IBA, IAA

d) Cytokinin

8. Which one of the following generally acts as an antagonist to gibberellins?

a) IAA

b) ABA

c) Ethylene

d) Zeatin

9. Coiling of garden pea tendrils around any support is an example of

a) thermotaxis

b) thigmotaxis

c) thigmonasty

d) thigmotropism

10. Senescence as an active developmental cellular process in the growth and functioning of a flowering plant, it is indicated in

a) leaf abscission

b) vessels and tracheid differentiation

c) floral parts

d) annual plants

11. Which plant hormone is used to manipulate and stimulate the maturation of sugarcane crop?

12. What are the functions of Auxins in plant growth?

13. What are Plant growth regulators?

14. Where are plant hormones formed? How are the hormones passed to the specific site of activity?

15. What is Cell Enlargement?

16 List a hormone that:

(a) Is in nature, gaseous.
(b) Is in charge of phototropism.
(c) Influences femaleness in cucumber flowers.
(d) Is utilized to kill weeds (dicots).
(e) In long-day plants, induces flowering.

17. Describe the physiological role of cytokinin.

18. Explain the physiological effects of gibberellins in plants.

19. Why is abscisic acid also known as stress hormone?

20. Which one of the plant growth regulators would you use if you are asked to

(a) induce rooting in a twig
(b) quickly ripen a fruit
(c) delay leaf senescence
(d) induce growth in axillary buds
(e) 'bolt' a rosette plant
(f) induce immediate stomatal closure in leaves.