

BIOLOGY

BOOKS - VIKRAM PUBLICATION (ANDHRA PUBLICATION)

PLANT GROWTH AND DEVELOPMENT

Very Short Answer Questions

1. Define plasticity. Give an example.



2. What is the disease that formed the basis for the identification of gibberellins in plants?

Name the causative fungus of the disease.



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3. What is law of dominance?



4. What is meant by bolting? Which hormone causes bolting?



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5. Which of the following respiratory organs are not supplied with blood vessels?



6. What is Ethephon ? Write its role in agricultural practices.



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7. Which of the PGRs induces parthenocarpy in Tomatoes ?



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8. What do you understand by vernalisation?



9. Which hormone promotes seed dormancy and breaks the dormancy in seeds ?



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Short Answer Questions

1. Write a note on agricultural / horticultural applications of auxins.



2. Which of the following physiological activity is not induced by Auxins in plants



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3. What are the functions of cytokinins?



4. What is the use of Ethylene in plants?



5. Which hormone promotes seed dormancy and breaks the dormancy in seeds ?



6. Which one of the following statement concerning growth regulators is incorrect.

7. Which one of the following statement concerning growth regulators is incorrect .



8. Which one of the following growth regulators is know as strees hormone?



9. Which one of the following statement concerning growth regulators is incorrect .



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10. Which one of the following statement concerning growth regulators is incorrect .



11. Which one of the following statement concerning growth regulators is incorrect.



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12. Which one of the following statement concerning growth regulators is incorrect.



13. Which one of the following statement concerning growth regulators is incorrect.



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14. The absolute growth rate and relative growth rates of living systems are.



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Long Answer Questions

1. Write a note on agricultural / horticultural applications of auxins.



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Important Questions

1. What is law of dominance?



2. What is meant by bolting? Which hormone causes bolting?



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3. What is Ethephon ? Write its role in agricultural practices.



4. Which of the PGRs is called stress hormone and why?



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5. What do you understand by vernalisation?



- **6.** Observe the following a, b statements.
- a) Abscisic acid prevents seed dormancy

b) Gibberllin promotes seed dormancy.

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7. Write the differences between Gibberellins and Abscisic acid



8. What are the functions of cytokinins?



9. Which of the followign is not the physiological effect of Ethylene?



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10. Which hormone promotes seed dormancy and breaks the dormancy in seeds ?



11. 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, (g) Overcome apical dominance, h) Kill dicotyledonous weeds.



- **1.** Fill in the blanks with appropriate word/words.
- a) The phase in which growth is most rapid is.....
- b) Apical dominance as expressed in dicotyledonous plants is due to the presence of more.....in the apical bud than in the lateral ones.
- c). In addition to Auxin, a....must be supplied to the culture medium to obtain a good callus in plant tissue culture.

d).....of vegetative plants are the sites of photoperiodic perception.



2. Exogenous GA induce formation of male flowers on genetically female plants of



3. Short day plants flower in



4. A farmer grows cucumber plants in his field. He wants to increase the number of female flowers. Which plant growth regulator can be applied to achieve this?



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5. What are the hormones that help in the growth of plants ?



6. Scientist who first discovered the role of light in photosynthesis



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7. Growth of multicellular organisms is initiated by



8. Rice seedlings infected with fungus Gibberella fujikuroi are called Foolish seedlings. What is the reason?



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9. Senescence as an active developmental celluar process in the growth , and funcitoning of a flowering plant, is indicated in



10. The growth in plants in measured by .

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11. A long day plant is



12. How does plant respond to sunlight?



- 13. What would be expected to happen if
- a) GA3 is applied to rice seedlings.
- b) Dividing cells stop differentiating.
- c) A rotten fruit gets mixed with unripe fruits.
- d) You forget to add cytokinin to culture medium.

