

Very Short Answer Type Questions

Q. 1. What does the stationary phase of sigmoid growth curve indicate?

Ans. The stationary phase of sigmoid growth curve indicates the phase of slow growth which finally stops.

Q. 2. What is meant by development?

Ans. Development is the sequence of events that occur in the life history of a cell, organ or organism, which includes growth, differentiation, maturation and senescence.

Q. 3. Why do leaves shed seasonally?

Ans. Because production of auxin is stopped by leaves.

Q. 4. What is real growth?

Ans. The growth that involves formation of new protoplasm is called as real growth.

Q. 5. Name the three phases of growth?

Ans. Meristematic, elongation and maturation Phase.

Q. 6. Name the factors which affect growth and development of plants

Ans. The factors that affect growth and development of plants are : Light, temperature, oxygen carbon dioxide, water, soil minerals and growth regulators.

Q. 7. What is growth curve

Ans. It is the graphic representation of the total growth against time.

Q. 8. What is grand period of growth ?

Ans. The period or time, in which growth takes place, has been called grand period of growth.

Q. 9. Name any one hormone which increases femaleness in plants.

Ans. Auxins, cytokinins, ethylene.

Q. 10. How light affects germination in pea and onion seeds?

Ans. In pea seeds germination is hastened by the presence of light. Light inhibits germination of the seeds of onion.

Q. 11. Name the plant hormone that can delay senescence.

Ans. Cytokinin is the plant hormone that can delay senescence.

Q. 12. Name the only gaseous natural plant growth regulator.

Ans. The only gaseous natural plant growth regulator is ethylene ($\text{CH}_2 = \text{CH}_2$).

Q. 13. Name the PGR that is used in brewing industry.

Ans. Gibberellic acid (GA_3).

Q. 14. Give the role of Ethephon.

Ans. Ethephon hastens fruit ripening in apples and tomatoes.

Q. 15. A plant placed near a window grows and bends towards the source of light. Give one reason.

Ans. It is because that auxin migrates from bright side of the tip to the dark side of the tip.

Q. 16. Why do leaves shed seasonally?

Ans. Because production of auxin is stopped by leaves.

Q. 17. What is bolting ?

Ans. Enormous elongation of internodes results in increase in stem height.

Q. 18. How do gibberellins promote seed germination?

Ans. The gibberellins mobilise storage reserves by amylases during seed germination.

Q.19. Name any two long day plants, two short day plants and two neutral day plants.

Ans. (i) Long day plants-Wheat, Cabbage.

(ii) Short day plants-Rice, Potato.

(iii) Day neutral plants-Balsam, Tomato.

Q. 20. Which hormone promotes leaf fall?

Ans. Abscissic acid promotes leaf fall.

Q. 21. What does apical dominance mean?

Ans. Suppression of the growth of lateral buds/ branches is called apical dominance.

Q. 22. Name the growth substance which causes senescence.

Ans. Abscissic acid.

Q. 23. Which is the site for the synthesis of florigen?

Ans. Leaves are the sites for the synthesis of florigen.

Q. 24. Define senescence.

Ans. Senescence is the process by which cells irreversibly stop dividing and enter a state of permanent growth arrest without undergoing cell death.

Q. 25. Which wavelength of light is most active in its effect on flowering?

Ans. Wavelength of red light is most active in its effect on flowering.

Q. 26. What are photoblastic seeds?

Ans. Seeds which require light for germination are known as photoblastic seeds.

Q. 27. What is etiolation?

Ans. Weak, pale, slender stems with small yellow leaves is termed as etiolation.

Q. 28. Name the substance which is capable of transmitting vernalising stimulus.

Ans. Vernalin is the substance which is capable of transmitting vernalising stimulus.

Q. 29. What is florigen?

Ans. Growth hormone inducing flowering in plants is called as florigen. It helps in overcoming apical dominance.

Q. 30. What is kinetin?

Ans. Kinetin is a substance which promotes cell division (cytokinesis).

Q. 31. Name the auxin used as a weedicide.

Ans. 2, 4-D and 2, 4, 5-T.

Q. 32. What is respiratory climactic?

Ans. Ethylene enhances the respiration rate during ripening of the fruits. This rise in rate of respiration is called respiratory climactic.