



BIOLOGY

NCERT - NCERT BIOLOGY(HINGLISH)

PLANT GROWTH AND DEVELOPMENT



1. Define growth, differentiation, development,

dedifferentiation,

redifferentiation,

determinate growth, meristem and growth

rate.



2. Why is not any one parameter good enough

to demonstrate growth throughout the life of

a flowering plant?



- **3.** Describe briefly:
- (a) Arithmetic growth
- (b) Geometric growth
- (c) Sigmoid growth curve
- (d) Absolute and relative growth rates

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4. List five main groups of natural plant growth regulators. Write a note on discovery, physiological functions and

agricultural/horticultural applications of any

one of them.

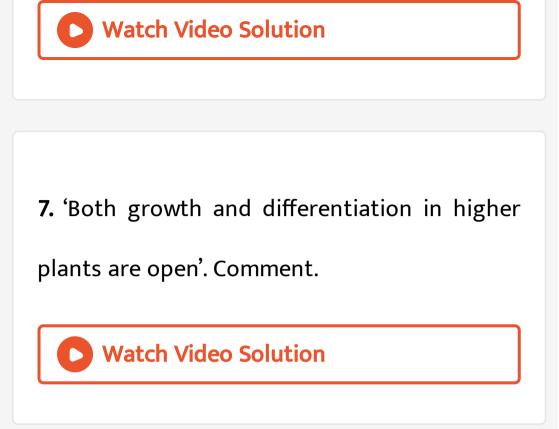


5. What do you understand by photoperiodism

and vernalisation? Describe their significance.

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6. Why is Abscisic acid also known as stress hormone?



8. 'Both a short day plant and a long day plant can flower simultaneously in a given place'. Explain.

9. 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.



10. Would a defoliated plant respond to photoperiodic cycle? Why?
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- **11.** What would be expected to happen if:
- (a) GA_3 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 the culture medium.



