

PLANT GROWTH & DEVELOPMENT

Q. Spraying of which of the following phytohormone on juvenile conifers helps hastening the maturity period, that leads early seed production?

- (a) Indole-3-butyric Acid**
- (b) Gibberellic Acid**
- (c) Zeatin**
- (d) Abscisic Acid**

Q. Which hormone promotes internode/petiole elongation in deep water rice?

- (a) GA₃**
- (b) Kinetin**
- (c) Ethylene**
- (d) 2, 4-D**

Q. The gaseous plant growth regulator is used in plants to:

- (a) promote root growth and root hair formation to increase the absorption surface**
- (b) help overcome apical dominance**
- (c) kill dicotyledonous weeds in the fields**
- (d) speed up the malting process**

Q. Which one of the following plants does not show plasticity?

(a) Coriander

(b) Buttercup

(c) Maize

(d) Cotton

Q. The plant hormone used to destroy weeds in a field is:

(a) 2, 4-D

(b) IBA

(c) IAA

(d) NAA

Q. Plants follow different pathways in response to environment or phases of life to form different kinds of structures. This ability is called:

- (a) Plasticity**
- (b) Maturity**
- (c) Elasticity**
- (d) Flexibility**

Q. The site of perception of light in plants during photoperiodism is:

- (a) Axillary bud**
- (b) Leaf**
- (c) Shoot apex**
- (d) Stem**

Q. Name the plant growth regulators which upon spraying on sugarcane crop, increases the length of stem, thus increasing the yield of sugarcane crop.

- (a) Ethylene**
- (b) Abscisic acid**
- (c) Cytokinin**
- (d) Gibberellin**

Q. The process of growth is maximum during:

(a) Senescence

(b) Dormancy

(c) Log phase

(d) Lag phase

Q. Match the organism with its use in biotechnology.

(a) <i>Bacillus Thuringiensis</i>	(i) Cloning vector
(b) <i>Thermus aquaticus</i>	(ii) Construction of first rDNA Molecule
(c) <i>Agrobacterium tumefaciens</i>	(iii) DNA polymerase
(d) <i>Salmonella typhimurium</i>	(iv) Cry proteins

Select the correct option from the following

	(a)	(b)	(c)	(d)
a)	(iii)	(ii)	(iv)	(i)
b)	(iii)	(iv)	(i)	(ii)
c)	(ii)	(iv)	(iii)	(i)
d)	(iv)	(iii)	(i)	(ii)

Q. It takes very long time for pineapple plants to produce flowers. Which combination of hormones can be applied to artificially induce flowering in pineapple plants throughout the year to increase yield?

- (a) Cytokinin and Abscisic acid**
- (b) Auxin and Ethylene**
- (c) Gibberellin and Cytokinin**
- (d) Gibberellin and Abscisic acid**

Q. What is the site of perception of photoperiod necessary for induction of flowering in plants?

- (a) Leaves**
- (b) Lateral buds**
- (c) Pulvinus**
- (d) Shoot apex**

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

(a) Ethylene

(b) Auxins

(c) Gibberellic-acid

(d) Cytokinins

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

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

Q. Phytochrome is a

(a) Flavoprotein

(b) Glycoprotein

(c) Lipoprotein

(d) Chromoprotein

Q. The Avena curvature is used for bioassay of

- (a) IAA**
- (b) ethylene**
- (c) ABA**
- (d) GA₃**

Q. What causes a green plant exposed to the light on only one side, to bend toward the source of light as it grows?

- (a) Green plants seek light because they are phototropic**
- (b) Light stimulates plant cells on the lighted side to grow faster**
- (c) Auxin accumulates on the shaded side, stimulating greater cell elongation there.**
- (d) Green plants need light to perform photosynthesis**

Q. Auxin can be bioassayed by:

- (a) Hydroponics**
- (b) Potometer**
- (c) Lettuce hypocotyl elongation**
- (d) Avena coleoptile curvature**

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

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

- (a) Mutated**
- (b) Embolized**
- (c) Etiolated**
- (d) Defoliated**

Q. Which one of the following growth regulators is known as 'stress hormone'?

- (a) Abscissic acid**
- (b) Ethylene**
- (c) GA₃**
- (d) Indole acetic acid**

Q. Non-albuminous seed is produced in:

- (a) Maize**
- (b) Castor**
- (c) Wheat**
- (d) Pea**