



Plant growth substances

Part I

❖ **Answer all the questions.**

01. A growth promoting hormone which produce in the tips of the shoots and roots.

- (1). Auxins (2). Gibberellins (3). Cytokinins (4). All above

02. Plant growth substance that stimulate seed germination.

- (1). Auxins (2). Gibberellins (3). Cytokinins (4). Cytocell

03. An artificial growth substance which induce flowering in pineapple in off seasons.

- (1). IAA (2). 4DPA (3). NAA (4). IBA

04. Consider following statements

A - Auxins promotes the elongation of the stem.

B - Gibberellins accelerate the cell division.

C - Cytokinins delay plant ageing

Correct statement/s.

- (1). only A (2). only B (3). only C (4). A and C

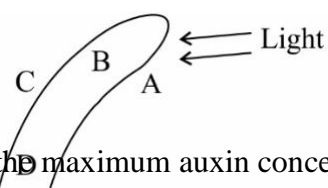
05. Main reason for making abscission layer.

- (1). Reduce the amount of growth substances to fruit fall and leaf fall
(2). To the growth of leaves (3). To the growth of fruits (4). None of the above

06. Artificial growth substance uses to get mango fruits in the off season.

- (1). 2, 4 DPA (2). Cytocell (3). NAA (4). IBA

07. Consider the following diagram which indicates that shoot apex of the plant bend towards the light.



Region with the maximum auxin concentration is,

- (1). A (2). B (3). C (4). D

08. Plant growth substance which inhibits the growth of lateral buds.

- (1). Auxins (2). Gibberellins (3). Cytokinins (4). Cytocell

Part II

01. (i). What are known as plant growth substances?
 (ii). Mention 03 main natural growth substances and state 01 use of them separately.
 (iii). What are known as inhibitors?
 (iv). Explain how shoot apex bends towards light.
 (v). What is the reason for falling leaves and fruits when matured?

02. Fill in the blanks by using following words in the brackets.

(IAA, 2, 4 DPA, inhibitors, auxins, artificial growth, substances, abscission layer, NAA, dissimilar, Gibberellins, ageing)

- (i). is used as a broad leaf weedicide for paddy fields.
 (ii). is the natural plant growth substance produced at the shoot apex and root apex.
 (iii). is a natural auxin found in plants.
 (iv). Auxins the growth of lateral buds of the plant.
 (v). Due to the formation of fruits and leaves fall take place in plants.
 (vi). is used to induce flowering in pineapple in off seasons.
 (vii). promotes mainly the elongation of the stem and growth of the fruits.
 (viii). Cytokinins delay plant
 (ix). Shoot apex turns towards light due to cell elongation of stem.
 (x). growth substances are widely used in horticulture and growing ornamental plants.

03. (i). Name 03 plant growth substances and mention the parts of the plant that influence and effect of plant growth substances.

Plant growth substance	Part of the plant that influence	Effect

- (ii). Name 03 artificial growth substances and mention uses of them to the agriculture separately.
 (iii). State locations of the plant where plant growth substances are created.