

## Udaan 2025

## Biology

DHA : 04

## Control and Coordination

**Q1** Consider the following statements:

a. Immediate response to stimulus is shown by *Mimosa pudica*.

b. Stems are positively geotropic while roots are negatively geotropic.

Which of these statement(s) is/are correct?

(A) (a) only

(B) (b) only

(C) Both (a) and (b)

(D) Neither (a) nor (b)

**Q2** The main effect of cytokinin in plants is to

(A) Improve the quality of fruits

(B) Prevent the growth of lateral buds

(C) Regulate the closing of stomata

(D) Stimulate cell division

**Q3** Growth of pollen tube towards ovule is called

(A) Phototropism

(B) Geotropism

(C) Hydrotropism

(D) Chemotropism

**Q4** Which of the following is not associated with the growth of plant?

(A) Auxin

(B) Gibberellins

(C) Cytokinins

(D) Absciscic acid

**Q5** Which of the following endocrine glands does not exist in pairs?

(A) Testes

(B) Pituitary

(C) Adrenal

(D) Ovary



## Answer Key

Q1 (A)

Q2 (D)

Q3 (D)

Q4 (D)

Q5 (B)



# Hints & Solutions

Note: scan the QR code to watch video solution

## Q1 Text Solution:

Statement (a) is correct because *Mimosa pudica* (the touch-me-not plant) shows an immediate response to the stimulus by closing its leaves when touched.

Statement (b) is incorrect because stems are negatively geotropic (they grow away from gravity) while roots are positively geotropic (they grow towards gravity).

The correct answer is **(A) (a) only**.

## Video Solution:



## Q2 Text Solution:

Cytokinins are a class of plant hormones that primarily promote cell division and growth, particularly in plant roots and shoots.

The correct answer is (D) Stimulate cell division.

## Video Solution:



## Q3 Text Solution:

The growth of the pollen tube towards the ovule is guided by chemical signals, making it

an example of chemotropism.

The correct answer is **(D) Chemotropism**.

## Video Solution:



## Q4 Text Solution:

Abscisic acid is primarily associated with inhibiting growth and promoting dormancy in plants. It is not directly involved in promoting plant growth like auxins, gibberellins, and cytokinins.

The correct answer is **(D) Absciscic acid**.

## Video Solution:



## Q5 Text Solution:

Pituitary do not exist in pairs.

## Video Solution:



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