

	SL No of QP 9821
Unique Paper Code	: 2493012004
Name of the course	: B.Sc. (Hons.) Biochemistry (NEP)
Name of the Paper	: Biochemical Mechanisms and Responses in Plants
Semester	: VII
Duration	: 2 hours
Maximum Marks	: 60 marks

Instructions for Candidates

There are 6 questions.

Attempt any 4 questions. All questions carry equal marks.

Question no. 1 is compulsory.

1A. Define the followings:

- i. Apical dominance
- ii. Enhancement effect
- iii. Glucosinolates
- iv. Tonoplast
- v. Allelopathy
- vi. Denitrification

B. Indicate whether True or False and justify your answer:

- i. Phytochromes exist in two interconvertible forms, Pr and Pfr.
- ii. Nitrogenase enzyme is active in the presence of oxygen.
- iii. Blue light enhances stomatal opening.

(9,6)

2. Differentiate between the following:

- i. Symbiotic and Non-symbiotic nitrogen fixation
- ii. Amyloplast and Leucoplast
- iii. CAM and C4 photosynthesis mechanisms
- iv. Determinate and indeterminate nodules
- v. Somatic embryogenesis and Organogenesis

(15)

3A. Discuss the biological functions of the following plant hormones:

- i. Gibberellins
- ii. Ethylene
- iii. Brassinosteroids

B. Classify terpenoids. Give one example each of terpenoids used for:

- i. Perfume industry
- ii. Anti-inflammatory activity
- iii. Anticancer activity

(9, 6)