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BOTANY

( Major )

Paper : 3.4

( **Contemporary Trends and Applied  
Aspects of Botany** )

Time : 3 hours

*The figures in the margin indicate full marks  
for the questions*

*Candidates **eligible** for Internal Assessment shall  
answer from PART—I only ( Marks : 90 )*

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*Candidates **not eligible** for Internal Assessment shall  
answer both from PART—I and PART—II ( Marks : 100 )*

PART—I

( Marks : 90 )

Answer *any* **five** questions

1. Discuss the role of mutation in crop improvement. Cite specific examples.

18

2. Write notes on the following : 9×2=18

(a) Use of biofertilizer in agriculture

(b) Yeast and their industrial uses

3. Describe the process of microbial fermentation of acetone explaining the reactions involved in it. 18

4. Explain the following : 9×2=18

(a) Harmful effects of GMO

(b) Shifting cultivation and its effects on environments

5. Write an account on plant tissue culture by highlighting its principles, techniques and application in floriculture. 18

6. Write explanatory notes on the following : 9×2=18

(a) Palynology as an aid for age determination of plants

(b) Parthenocarpy

7. Write short notes on any *three* of the following : 6×3=18

- (a) Bay leaf
- (b) Agroforestry
- (c) Biosphere reserve
- (d) Hevea rubber
- (e) Aconite

PART—II

( Marks : 10 )

( In lieu of Internal Assessment )

8. Write critical notes on any *two* of the following : 5×2=10

- (a) Wildlife conservations
- (b) Algae as food and feed
- (c) Soya bean
- (d) Bonsai

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