

2012

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 in detail the process of fermentation of citric acid by mentioning the chemical changes involved in it.

18

2. Explain the following : 9+9=18
- (a) Food value of mushroom and their cultivation
  - (b) Role of blue-green algae in agriculture
3. Write notes on the following : 9+9=18
- (a) Processing of coffee
  - (b) Cultivation of jute and its different finished products
4. Write explanatory notes on the following : 9+9=18
- (a) Use of chemical fertilizers and their impact on human health and biodiversity
  - (b) Role of polyploidy in plant breeding
5. Give an account of application of plant growth regulators in agriculture and horticulture in respect of fruit setting, parthenocarpy, fruit drops and weed control. 18
6. Discuss the techniques of genetic engineering explaining the practical utility and harmful effects. 18

( 3 )

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

- (a) CITES
- (b) Blackpepper
- (c) Clonal propagation
- (d) Mycotoxin
- (e) Layering and grafting

PART—II

( Marks : 10 )

( In lieu of Internal Assessment )

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

- (a) Palynology in coal and mineral oil exploration
- (b) Social forestry
- (c) Medicinal uses of poppy
- (d) Bottle gardens

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