

2 0 1 5

BOTANY

(Major)

Paper : 5.4

(Applied Botany)

Full Marks : 60

Time : 3 hours

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

1. Answer the following as directed : $1 \times 7 = 7$

(a) Alginates are used in — industry.
(Fill in the blank)

(b) *Funori* is obtained from —.
(Fill in the blank)

(c) The antibiotic neomycin is produced by
—.
(Fill in the blank)

(d) Name two common bacteria found in
milk.

(e) Red rot of sugarcane is caused by ——. (Fill in the blank)

(f) The production of pure lines in cross-pollinated plants are known as ——. (Fill in the blank)

(g) Name two synthetic hormones commonly used as herbicide.

2. Write brief notes on the following : 2×4=8

- (a) Mass selection
- (b) Carrageenin
- (c) Canker of citrus fruits
- (d) Biochemical weathering

3. Write explanatory notes on any *three* of the following : 5×3=15

- (a) Indoor gardening
- (b) Bioremediation
- (c) Role of algae in soil fertility
- (d) Clonal propagation
- (e) Mycotoxin

4. Answer the following questions :

- (a) Give an account on the role of microbes in food industry. 10

Or

Write an account on the food value of mushroom and their cultivation. 10

- (b) Write an account on deforestation and its impact on climate change. 10

Or

Write an account on mutation breeding. Add a note on its advantages and disadvantages. 10

- (c) Write notes on any *two* of the following :
5×2=10

(i) Layering and grafting

(ii) Social forestry

(iii) Bonsai

(iv) Harmful effect of GMO

★ ★ ★