

2019

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. Fill in the blanks/Answer the following :  $1 \times 7 = 7$

- (a) Name any one oil yielding algae.
- (b) Who did introduce the concept of mutation in plant science?
- (c) IPCC stands for \_\_\_\_\_.
- (d) Who was the discoverer of antibiotic?
- (e) Name any one indoor plant which can absorb formaldehyde.
- (f) The fungal component of a lichen is known as \_\_\_\_\_.
- (g) Which of the plant hormones is responsible for shedding of leaves?

2. Answer the following questions : 2×4=8

- (a) Define polyploidy.
- (b) What is bonsai?
- (c) Write the names of four commercial products obtained from fungi.
- (d) What is bioremediation?

3. Answer any *three* questions of the following : 5×3=15

- (a) How do mycorrhizae function as biofertilizers?
- (b) Write a note on the role of Gibberellins in agriculture.
- (c) Elucidate the importance of grafting in horticulture.
- (d) Write a note on nutritive values of edible fungi citing suitable examples.
- (e) What is the impact of climate change on environment?

4. Answer any *three* of the following questions :

10×3=30

(a) What is 'disease resistance'? How can breeding be helpful in acquiring disease resistance in crop plants citing suitable examples?

(b) Elucidate the environmental problems arise due to shifting cultivation in North-East India with suitable examples.

(c) Define allergens with suitable examples. What are the different sources of allergens? How do allergens affect human health?

(d) How nitrogen is being fixed by cyanobacteria? Give example of a few  $N_2$  fixing cyanobacteria. How does it improve soil fertility?

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