

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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