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BOTANY

( Major )

( Applied Botany )

Paper : 5.4

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 the microbe which is responsible for production of acetic acid.
- (b) Write the scientific name of button mushroom.
- (c) Name the person who was behind the popularization of climate change concept in India.
- (d) The first antibiotic was extracted from a \_\_\_\_\_.

- (e) Bonsai is a technique originated in \_\_\_\_\_.
- (f) The algal component of a lichen is known as \_\_\_\_\_.
- (g) 2, 4-D stands for \_\_\_\_\_.

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

- (a) Define mycotoxicosis.
- (b) What is the meaning of mutation?
- (c) Write the names of four commercial products obtained from algae.
- (d) What do you mean by serology?

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

5×3=15

- (a) Explain the role of antibiotics in disease control.
- (b) Write a note on IPCC.
- (c) Elucidate the importance of layering.
- (d) Write a note on biological indicators of pollution.
- (e) Is polyploidy a natural phenomenon?

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

10×3=30

- (a) What do you mean by 'Induced Mutation'? Citing suitable examples write a note on its contribution towards improvement of crop plants.
- (b) What is shifting cultivation? Is it beneficial? Justify your answer with suitable examples from NE India.
- (c) What is plant growth regulator? Mention a few natural plant growth regulators with their characteristics. Are they harmful? Justify your answer.
- (d) How nitrogen is being fixed by bacteria? Give example of a few  $N_2$  fixing bacteria. How does it improve soil fertility?

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