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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 : 1×7=7

(a) Name the fungus from which first antibiotic was derived.

(b) 2, 4-D is a —.

(Fill up the blank)

(c) Name one hydrogen producing algae.

(d) Name the microalgae that causes red-rust disease of tea leaf.

(e) Name the genetically engineered bacterial strain called 'superbug'.

(f) Name the lichen which produces 'litmus'.

(g) The distillation product of fermented grape juice is known as —.

(Fill up the blank)

2. Write short notes on the following : $2 \times 4 = 8$

(a) VAM

(b) Use of growth hormones in tissue culture

(c) Two properties of antibiotics

(d) Allergens

3. Write on any *three* of the following : $5 \times 3 = 15$

(a) Bonsai

(b) Role of bacteria as biofertilizer

(c) Mycotoxins and health hazard

(d) Industrial uses of yeast

(e) Serology

4. Answer the following questions :

- (a) What is antibiotic? Describe the process of commercial production of antibiotics. 2+8=10

Or

What is polyploidy? Mention the role of polyploidy in crop improvement. 2+8=10

- (b) Define deforestation. Describe the consequences of deforestation. 2+8=10

Or

Give an account of the different commercial products obtained from algae. 10

- (c) What is grafting? Write about different types of grafting. 2+8=10

Or

Describe the techniques used for developing disease resistance crops. 10
