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(May/June)

BOTANY

(Core)

Paper : C-3

(Mycology and Phytopathology)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

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

1. (a) Choose and write the correct answer of the following : $1 \times 3 = 3$

(i) Motile spores are present in Puccinia / Synchronium / Rhizopus / Penicillium.

(ii) Clamp formation is seen in Chytridiomycotina / Ascomycotina / Basidiomycotina / Deuteromycotina.

(iii) Which of these is a bacterial disease that affects the plants?

Crown gall / Mosaic / Smut /
Blisters

(2)

(b) Fill in the blanks of the following : $1 \times 2 = 2$

(i) The plant diseases which spread widely but occur periodically are called _____.

(ii) Any organism capable of producing a disease is called _____.

2. Write short notes on any three of the following : $4 \times 3 = 12$

(a) Conidiophore and conidia of *Penicillium*

(b) Role of fungi in biotechnology

(c) Types of fruiting body in slime moulds

(d) Pathogenesis

(e) Fungi in pharmaceutical preparations

3. Describe the mode of nutrition in fungi. Give a brief account of the classification of fungi that you have studied. $5 + 7 = 12$

Or

Describe the life-history of an edible fungus that you have studied. State its economic importance. $8 + 4 = 12$

4. Write about the symbiotic association in lichen. Mention the economic and ecological importance of lichen. $6 + 3 + 3 = 12$

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(Continued)

(3)

Or

Write the role of fungi as biocontrol agents. Explain the significance of *Neurospora* as genetic research tool. $7 + 5 = 12$

5. Mention the symptoms, names of the causal organism, disease cycle and control measures of the diseases (any two) : $(1 + 1 + 2 + 2) \times 2 = 12$

(a) Citrus canker

(b) Tobacco mosaic viruses

(c) Early blight of potato

(d) Black stem rust of wheat

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