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SECOND YEAR B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2005

Part III—Group IV—Botany

Paper II—MICROBIOLOGY, PHYCOLOGY, MYCOLOGY AND PLANT PATHOLOGY

Time : Three Hours

Maximum : 50 Marks

*Answers may be written either in English or in Malayalam.
Draw diagrams wherever necessary.*

Part A

I. Explain any *ten* of the following in *one* or *two* sentences.

- | | |
|-----------------------|------------------------|
| 1 Carrageenin. | 9 Diatomite. |
| 2 Plasmid. | 10 Parasexuality. |
| 3 Saxicoles. | 11 Dolipore septum. |
| 4 Amphitrichous. | 12 Aplanospore. |
| 5 Fission. | 13 Hypoplasia. |
| 6 Phycobilins. | 14 Xantho monas citri. |
| 7 Teleutospore | 15 Blight of Paddy. |
| 8 Coprophilous fungi. | |

(10 × 1 = 10 marks)

Part B

II. Write brief notes on any *ten* of the following :

- | | |
|----------------------|------------------------|
| 1 Mesosomes. | 9 Actinomycetes. |
| 2 Isidia. | 10 Nitrogen fixation. |
| 3 Oyster mushroom. | 11 Tinsel flagellum. |
| 4 Heterocyst. | 12 Plakea. |
| 5 Fungi imper-fecti. | 13 Nannandria. |
| 6 Bacteriophage. | 14 Biological control. |
| 7 Autotrophs. | 15 Hologamy. |
| 8 Methanogenesis. | |

(10 × 2 = 20 marks)

Part C

III. Answer any *two* of the following :

- 1 Justify the statement "Viruses are considered as living molecules".
- 2 Give a brief account of various types of thalli found in coleochaete.

- 3 Briefly explain the role of fungi in ecosystem.
- 4 What are the chief methods of disease control ? Explain.

(2 × 4 = 8 marks)

Part D

IV. Answer any *one* of the following :

- 1 Describe the structure of sex organs in chara.
- 2 Briefly explain the methods of food preservation.

(1 × 4 = 4 marks)

Part E

V. Answer any *one* of the following :

- 1 Describe the role of microbes in industry.
- 2 What is an ascocarp ? Describe the various kinds of ascocarps met with in the Ascomycotina.
- 3 Describe the structure and life history of polysiphonia.

(1 × 8 = 8 marks)