

This question paper contains 4 printed pages]

Your Roll No.

932

B.Sc. (Hons.)/I

C

BOTANY - Paper II

(Micro-biology, Mycology, Phytopathology and Lichens)

(Admission of 2004 and onwards)

Time : 3 Hours

Maximum Marks : 38

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt *Five* questions in all.

Q. No. 1 is compulsory.

I. (a) Fill in the blanks : 8×1=8

- (i) Lichens are composite thallophytes containing an alga and a
- (ii) Fruiting body of Agaricales is called
- (iii) Red rot of sugarcane is caused by
- (iv) While fungi are mostly eukaryotes, the bacteria are

P.T.O.

(v) Pycnidial stage of *Puccinia* develops on

(vi) Bacterial cell wall is made up of

(vii) is the genetic material of TMV.

(viii) Smut of wheat is caused by

(b) Name the organism used in : 2×1=2

(i) Baking industry

(ii) Antibiotics.

2. Give a brief account of morphological forms and internal structure of lichen thallus. 7

3. Draw well labelled diagrams of any two of the following : $2 \times 3\frac{1}{2} = 7$

(i) E.M. of bacterial cell

(ii) V.S. apothecium of cup fungi

(iii) Aecidial cup of *Puccinia*.

4. (a) Discuss the structure of T2 virus. 3½
- (b) Give the causal organism, symptoms and control of any *one* of the following disease : 3½
- (i) White rust of crucifers
- (ii) Late blight of Potato.
5. Distinguish between any *two* of the following : 2×3½=7
- (i) Archaeobacteria and Eubacteria
- (ii) Gram positive bacteria and Gram negative bacteria
- (iii) Teliosorus and uredosorus.
6. Explain briefly :
- (i) Structure of sporangium of Stemonites. 3½
- (ii) Cleistothecium of *Erysiphe*. 3½

7. Write short notes on :

- | | | |
|-------|----------------------------------|---|
| (i) | Transmission of plant viruses | 2 |
| (ii) | Viroid | 2 |
| (iii) | Sexual reproduction in Rhizopus. | 3 |