

This question paper contains 3 printed pages.]

Your Roll No.

1297

A

B.Sc. (Hons.)/I

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 seven questions in all.

Q. No. 1 is compulsory.

1. (a) Fill in the blanks :

- (i) Heterocious rust requires
- (ii) Fungi usually store reserve food material in the form of
- (iii) *Penicillium* was discovered by
- (iv) Yellow rust is caused by
- (v) The sexual fruiting body of *Neurospora* is
- (vi) Fungus responsible for causing Irish famine is

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(b) Define the following with examples :

- (i) Endospore
- (ii) Satellite Virus
- (iii) Isidia.

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[P.T.O.]

(c) Mention one important contribution of :

- (i) B. B. Mundkar
 (ii) Alexopoulos & Ainsworth. 2

2. Define any *five* of the following with suitable examples :

- (i) Prosenchyme (ii) Retrovirus
 (iii) Chlamyospore (iv) Cleistothecium
 (v) Pathogens (vi) Rogueing 5

3. Discuss the pathogenicity of any *two* of the following fungi and write at least two control measures for each :

- (i) *Colletotrichum falcatum*
 (ii) *Phytophthora infestans*
 (iii) *Fusarium moniliforme*. 5

4. Differentiate between the following with examples.

- (i) Transformation and Conjugation
 (ii) Autoceous and Heteroecious habit 5

5. Depict the life cycle of *Peronospora* with the help of labelled diagrams only. 5

Write its systematic position.

6. Write short notes on any *two* with suitable examples.

- (i) Transduction (ii) Parasexuality
 (iii) Nitrogen bacteria 5

7. (a) Comment on the statement—Viruses are living. 5

(b) Why are Myxomycetes classified as fungi ? 5

8. Fill in the blanks :

- (i) The largest bacterium is
- (ii) An enclosed ascocarp without ostiole is called
- (iii) Coenocytic mycelium is seen in
- (iv) 'Reindeer moss' is common name of
- (v) Multicellular conidia are found in 5