

**M.Sc. 1st Semester Examination, 2014**

**BOTANY**

**PAPER— BOT-103**

*Full Marks : 40*

*Time : 2 hours*

*The figures in the right-hand margin indicate marks  
Candidates are required to give their answers in their  
own words as far as practicable*

*Illustrate the answers wherever necessary*

**Use separate answers scripts for each Unit**

**UNIT – I**

*( Mycology )*

*[ Marks : 20 ]*

1. Answer any *four* questions from the following :  $1 \times 4$   
(a) Name two basic types of flagella observed  
in fungi.

*( Turn Over )*

( 2 )

- (b) Name one unicellular fungi.
- (c) What is arthrospore ?
- (d) What is dikaryon stage ?
- (e) Who discovered lichens to be composed of two organisms ?
- (f) What is hemibiotroph ?
2. Answer any *two* questions from the following : 4 × 2
- (a) Unique features of fungi.
- (b) Briefly discuss tetrapolar and bipolar heterothallism in fungi.
- (c) Write a note on spore dispersal technique in *Cyathus*.
3. What is heterothallism ? Describe heterothallic incompatibility in Ascomycetes. 2 + 6

*Or*

Write a note on role of fungi in

( 3 )

biotechnology. Mention the application of fungi in agriculture. 4 + 4

UNIT – II

( *Plant Pathology* )

[ *Marks : 20* ]

4. Answer any *four* questions from the following : 1 × 4
- (a) Define elicitor.
  - (b) Define inoculum.
  - (c) Name one fungicide which has resistance inducing activity.
  - (d) Give the formula of ethylene.
  - (e) What is DIPA ?
  - (f) What is HR ?
5. Answer any *two* questions from the following : 4 × 2
- (a) Explain the morphological and anatomical structure of ectomycorrhizal root. How mycorrhiza help the host ?

( 4 )

(b) Explain the sterite and fertile stages of pink disease of Eucalyptus.

(c) Comment on symptoms and control of wilt of Pigeon Pea.

6. Discuss the biotechnological approaches to making disease resistant plant. 8

*Or*

Briefly describe the control mechanism of plant diseases by exclusion. 8

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