

M.Sc. 1st Semester Examination, 2012

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 answer scripts for each Unit

UNIT – I.

(Mycology)

1. Answer the following questions (any four): 1 × 4
- (a) What is quorn mycoprotein ?
 - (b) Distinguish between mycosis and mycotoxicosis.
 - (c) How does griseofulvin inhibit fungal growth ?

(Turn Over)

- (d) What are dimorphic fungi ? Give an example.
- (e) Name the fungi used in the production of cheese and soy sauce.
- (f) What is Siderophore ?

2. Write short notes on (any two) : 4 × 2

- (i) Grain spawn production of button mushroom
- (ii) Production of citric acid by *Aspergillus niger*
- (iii) Role of Spitzenkörper in hyphal growth.

3. What is secondary homothallism and where does it occur ? Discuss the genetic and molecular basis of heterothallism in fungi. 2 + 1 + 5

Or

- (a) Name two each of natural and semisynthetic penicillins. Name the source and mode of action of penicillin and cyclosporin.
- (b) Name different types of aflatoxin. 2 + (2 + 2) + 2

UNIT – II

(*Plant Pathology*)

4. Answer the following (any *four*): 1 × 4
- (a) What is crown gall disease ?
 - (b) What is appressorium ?
 - (c) What is systemic fungicide ?
 - (d) Define epidemiology.
 - (e) What is phytoalexin ?
 - (f) What is SAR ?
5. Answer any *two* of the following : 4 × 2
- (a) Direct penetration method.
 - (b) Cellulolytic enzymes in plant pathogenesis.
 - (c) Structural defence of plants.
6. What do you mean by host-parasite recognition ?
Write a brief note on host-parasite recognition with reference to the host and the pathogen factors acting as signals. 1 + 4 + 3

(4)

Or

What is the causal organism of spike disease of Sandal ? Write its symptoms, etiology and control measures.

1 + 2 + 3 + 2
