

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

UNIT—I

[Marks : 20]

1. Write brief answers to the following questions

(any four) :

1 x 4

(a) What is Straminopila ?

(b) What is Centrum ?

- (c) What is Parasexuality ?
- (d) Write one antiprotozoan antibiotic of Fungal origin.
- (e) What is necrotroph ?
- (f) Write two characters of poisonous mushroom.
2. Write short notes on any *two* of the following : 4 x 2
- (a) Polyphyletic evidences showing fungus closeness to animals.
- (b) Status and position of Deuteromycetes in modern classification.
- (c) Physiological relationship between lichen partners.
3. Critically discuss the role of fungi in modern biotechnology. 8

Or

Answer the following questions :

- (i) How the presence of glucose in a substrate prevent the utilization of other C-source by fungi ?

- (ii) How fungi get nutrition from cellulose ?
- (iii) What are Fusarium toxins ? What symptoms they produce ? 2 + 3 + 3

UNIT-II

[Marks : 20]

4. Answer the following (any *four*) : 1 x 4
- (a) What are elicitors ?
- (b) How is ectomycorrhiza characterized ?
- (c) What is hyperauxinic condition ?
- (d) What is eradication ?
- (e) What is the function of arbuscle ?
- (f) Define PR-proteins.
5. Answer any *two* of the following : 4 x 2
- (a) Modern diagnostic tools used in plant disease diagnosis.
- (b) Role of toxins in pathogenesis.
- (c) How the Black stem rust of wheat is controlled ?

(4)

6. What is macerozyme ? Write a brief note on role of different pectolytic enzymes in plant pathogenesis. 1 + 7

Or

What causes stem wilt of *Casuarina* ? Write important symptoms and control of this disease.

1 + 3 + 4