

2 0 2 6

(FYUGP)

(2nd Semester)

BOTANY

(MINOR)

Paper : BCC/M-02

(Mycology and Phytopathology)

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

*The figures in the margin indicate full marks
for the questions.*

(PART : A—OBJECTIVE)

(Marks : 25)

Choose the correct option :

1×15=15

1. Muriform conidia are found in

- (a) *Alternaria*
- (b) *Rhizopus*
- (c) *Agaricus*
- (d) *Aspergillus*

2. Members of Ascomycetes class are commonly known as
- (a) puffballs
 - (b) sac fungi
 - (c) water molds
 - (d) rust fungi
3. To which group of kingdom fungi mushrooms are classified?
- (a) Ascomycetes
 - (b) Basidiomycetes
 - (c) Deuteromycetes
 - (d) Phycomycetes
4. Nutritionally *Albugo* is
- (a) saprophyte
 - (b) facultative saprophyte
 - (c) obligate parasite
 - (d) None of the above
5. Which of the following is not a vegetative mode of reproduction in fungi?
- (a) Fragmentation
 - (b) Rhizomorph
 - (c) Sclerotia
 - (d) Somatogamy

6. Resting spore is called
- (a) siderophore
 - (b) statospore
 - (c) planospore
 - (d) phialospore
7. The genus *Rhizopus* belongs to the family
- (a) Mucoraceae
 - (b) Saccharomycetaceae
 - (c) Pilobolaceae
 - (d) Rhodomycetaceae
8. Powdery mildews of crops are caused by
- (a) bacteria
 - (b) Phycomycetes
 - (c) Basidiomycetes
 - (d) Ascomycetes
9. Which division of fungi in Ainsworth's classification represents 'true fungi'?
- (a) Myxomycota
 - (b) Eumycota
 - (c) Zygomycota
 - (d) Deuteromycota

10. Vegetative reproduction in lichens takes place by

- (a) Isidia
- (b) Soredia
- (c) Fragmentation
- (d) All of the above

11. The 'disease triangle' concept in plant pathology involves which three factors?

- (a) Pathogen, vector, environment
- (b) Host, pathogen, environment
- (c) Host, climate, soil
- (d) Pathogen, host, time

12. Local and systemic infection is seen in

- (a) white rust of crucifers
- (b) late blight of potato
- (c) damping-off disease
- (d) None of the above

13. Most of the plant viruses are transmitted by

- (a) whiteflies
- (b) planthopper
- (c) leafhopper
- (d) aphids

(5)

14. Necrosis cannot be in the form of

- (a) lesions
- (b) scabs
- (c) cankers
- (d) rots

15. Hyperplasia refers to

- (a) increased cell division
- (b) cell death
- (c) cell enlargement
- (d) decreased cell division

Answer/Write notes on any *five* of the following
in short : 2×5=10

1. Define helotism.
2. General characteristics of fungi
3. Obligate and facultative parasite
4. Mycoherbicides
5. Plasmodia
6. Mycotoxins
7. Bioluminescence

(6)

(PART : B—DESCRIPTIVE)

(Marks : 50)

1. Give an account on the types of plasmodia and types of fruiting bodies in allied fungi.

5+5=10

Or

Write short notes on the following : 5×2=10

- (a) Endomycorrhiza
- (b) Nature of associations in lichens

2. Describe the life cycle of *Phytophthora* with diagram.

10

Or

Write short notes on the following : 5×2=10

- (a) Reproduction of Chytridiomycota
- (b) Characteristic features of Zygomycota

3. Describe the life cycle of *Agaricus* with diagram.

10

Or

Write short notes on the following : 5×2=10

- (a) Secondary metabolites
- (b) Biofertilizers

(7)

4. Give an account on host-pathogen relationships in plant pathology. 10

Or

Write short notes on the following : 5×2=10

- (a) Papaya mosaic viruses
- (b) Citrus canker

5. Write short notes on the following : 5×2=10

- (a) Ainsworth system of classification
- (b) Thallus organization in Oomycota

Or

Write short notes on the following : 5×2=10

- (a) Application of fungi in food industry
- (b) Disease cycle

★ ★ ★