

Bs/BCC/M-02

2024

(FYUGP)

(2nd Semester)

BOTANY

(Minor)

Paper Code : BCC/M-02

(Mycology and Phytopathology)

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

(PART : B—DESCRIPTIVE)

(Marks : 50)

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

UNIT—I

- 1. (a) Explain the thallus organization of fungi
as well as its mode of nutrition. 5+5=10**

24L/825a

(Turn Over)



(2)

Or

(b) Write short notes on the following :
5+5=10

(i) Nature of associations of algal and fungal partners

(ii) Mycorrhizae and its significance

UNIT—II

2. (a) Discuss in detail the life cycle of phytophthora. 10

Or

(b) Write short notes on the following :
5+5=10

(i) Characters of zygomycota

(ii) Rhizopus

UNIT—III

3. (a) Give a detailed note with appropriate diagrams in regard to the life cycle of Saccharomyces. 10

Or

(b) Write short notes on the following :
5+5=10

(i) Characters of ascomycota

(ii) Heterokaryosis

24L/825a

(Continued)

(3)

UNIT—IV

4. (a) What are secondary metabolites? Explain the role of fungal species in secondary metabolites. Add a note on biofertilizers. 2+4+4=10

Or

(b) Write short notes on the following :
5+5=10

(i) Application of fungi in baking

(ii) Fungi in biological control

UNIT—V

5. (a) Explain the plant disease of citrus canker in detail. 10

Or

(b) Write short notes on the following :
5+5=10

(i) Disease cycle

(ii) White rust of crucifers

24L—330/825a

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Paper Code : BCC/M-02

(Mycology and Phytopathology)

(PART : A—OBJECTIVE)

(Marks : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(Marks : 15)

Choose the correct answer by putting a Tick (✓) mark in the brackets provided : 1×15=15

1. The chemical component of cell wall in fungi is

(a) cellulose ()

(b) lipid ()

(c) chitin ()

(d) lysine ()

(2)

2. _____ are specialized cells produced by fungi from which a penetration peg emerges that pierces the host tissues.

- (a) Haustorium ()
- (b) Stromata ()
- (c) Parenchyma ()
- (d) Appressorium ()

3. The fungal component of lichens is

- (a) mycology ()
- (b) mycobiont ()
- (c) phycology ()
- (d) phycobiont ()

4. Which saprophytic fungi is also known a bread mold?

- (a) Aspergillus ()
- (b) Saccharomyces ()
- (c) Agaricus ()
- (d) Rhizopus ()

(3)

5. Advanced forms of Chytridiomycetes attached to the substratum with the help of

- (a) rhizoids ()
- (b) lichens ()
- (c) hyphae ()
- (d) None of the above ()

6. Some members of fungal organisms live completely within the cells of the host called

- (a) holocarpic ()
- (b) eucarpic ()
- (c) endobiotic ()
- (d) epibiotic ()

7. The name Saccharomyces is related to

- (a) baking ()
- (b) brewing ()
- (c) baking and brewing ()
- (d) None of the above ()

8. The terminal binucleate cell of the ascogenous hyphae elongate then bend itself to form a hook-like structure known as
- (a) crozier ()
 - (b) trichogyne ()
 - (c) mycelium ()
 - (d) rhizomorph ()
9. The fruit bodies appear in circle in grassy lands, forming the 'fairy-ring' in
- (a) Mucor ()
 - (b) Agaricus ()
 - (c) Synchytrium ()
 - (d) Yeast ()
10. Sir Alexander Fleming (1929) isolated penicillin from
- (a) *Penicillium chrysogenum* ()
 - (b) *Penicillium cephalosporin* ()
 - (c) *Penicillium notatum* ()
 - (d) None of the above ()

Bs/BCC/M-02/825

11. Toxins produced by ingested fungal species are known as
- (a) mycotoxins ()
 - (b) aflatoxins ()
 - (c) cytotoxins ()
 - (d) exotoxins ()
12. ____ is the ability to cause disease.
- (a) Pathogen ()
 - (b) Pathogenicity ()
 - (c) Inoculum ()
 - (d) Inoculum potential ()
13. Those diseases which are limited to a definite area of varying extent of an organ, or only to a particular part of the plant is
- (a) systemic diseases ()
 - (b) soil-borne diseases ()
 - (c) seed-borne diseases ()
 - (d) localised diseases ()

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(6)

14. Citrus canker is a _____ disease.

(a) fungal ()

(b) viral ()

(c) bacterial ()

(d) None of the above ()

15. A regulatory mechanism that exporting and importing countries use to ensure that diseases are not carried by the material being trade is

(a) quarantine ()

(b) prevention ()

(c) disease management ()

(d) pathogen management ()

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(7)

SECTION—II

(Marks : 10)

Write on any five of the following in few sentences : 2×5=10

1. Prosenchyma

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(8)

2. Isogamy and anisogamy

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(9)

3. Gametangial contact

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4. Fruticose lichen

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5. Parasexuality

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6. Nanotechnology

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7. Damping off disease

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