

Total number of printed pages – 5

3 (SEM-2/CBCS) BOT HC1

2025

BOTANY

(Honours Core)

Paper : BOT-HC-2016

(Mycology and Phytopathology)

Full Marks : 60

Time : Three hours

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

1. Choose the correct answer of the following :
1×7=7

(a) Ascomycetes are also known as—

- (i) Mushroom
- (ii) Fairy ring mushroom
- (iii) Club fungi
- (iv) Sac fungi

(b) In *Agaricus* the interwoven mycelia twist compactly to form a thick rope, called—

- (i) Rhizomorphs
- (ii) Sclerotium
- (iii) Cleistothecium
- (iv) Apothecium

(c) The mycelium is aseptate with irregular distribution of nuclei, called—

- (i) Coenocytic
- (ii) Plectenchyma
- (iii) Prosenchyma
- (iv) Stroma

(d) Fungi, which are used to attack and kill insects are called as—

- (i) Microfungi
- (ii) Insectisides
- (iii) Mycoinsectisides
- (iv) Mycofungisides

(e) A phenomenon of eating upon nematodes by fungi is known as—

- (i) Mycophagy
- (ii) Nematophagy
- (iii) Perennation
- (iv) Pathogenesis

(f) Fungi producing compatible male and female gametes on the same mycelium is known as—

- (i) Heterothallic
- (ii) Paraphyses
- (iii) Homothallic
- (iv) Conidia

(g) *Taxomyces andreanae* is used for the treatment of—

- (i) Skin cancer
- (ii) Lung cancer
- (iii) Liver cancer
- (iv) Breast and Ovarian cancer

2. Answer the following questions in brief:

2×4=8

- (a) How does binary fission take place in yeast cell? Describe with suitable diagram.
- (b) Write the symptoms of '*Black stem rust of wheat*' disease.
- (c) Describe briefly the asexual reproduction of *Synchytrium*.
- (d) What do you mean by primary inoculum and secondary inoculum?

3. Write short notes on **any three** of the following:

5×3=15

- (a) Importance of plant quarantine
- (b) Fruit body of *Agaricus*
- (c) Parasexuality in fungi
- (d) General symptoms of plant diseases
- (e) Mycorrhizal fungi as biocontrol agent

4. Answer **any three** of the following questions:

10×3=30

- (a) Give a detailed account of classification of algae proposed by Ainsworth (1973).

(b) What do you mean by blue or green mould? Write a detailed account on *one* blue or green mould you have studied.

1+9=10

(c) Why are lichens called the indicators of pollution? Describe different types of reproduction of lichen.

2+8=10

(d) What is necrosis? Write about different types of necrotic symptoms. Write *two* methods of plant disease control.

1+5+4=10

(e) What do you mean by applied mycology? Discuss the role of fungi in Bio-technology.

2+8=10

(f) What do you mean by perennation and pathogenesis? What are the different agents for dissemination or dispersal of plant pathogen? Describe how plant pathogens disseminate.

4+2+4=10

