

Roll No \_\_\_\_\_

[Total No. of Pages : 1

**PGIVS-006-B-21**  
**M.Sc. IV Semester Degree Examination**  
**BOTANY**  
**Applied Mycology**  
**Paper : SCT - 4.3.1**

**Time : 3 Hours**

**Maximum Marks : 80**

**Instructions to Candidates:**

- 1) Answer any **FIVE** questions.
- 2) Q **No.1** is compulsory.

1. Answer in **one** or **two** sentences. **(10×2=20)**
    - a) Chitin
    - b) Aflatoxin
    - c) Basidium
    - d) Electroporator
    - e) Amylase
    - f) Filamentous fungi
    - g) Ganoderma
    - h) Microsporum
    - i) Saccharomyces
    - j) Morchella
  2. Explain fungal diversity in different ecosystem. **(15)**
  3. Describe the methodology involved in Mushroom cultivation. **(15)**
  4. Discuss the production and applications of fungal enzymes. **(15)**
  5. Write an account on fungal secondary Metabolites used in Medicine. **(15)**
  6. Write short notes on any **THREE** of the following. **(5×3=15)**
    - a) Fungal allergens
    - b) Medicinal value of edible Mushrooms.
    - c) Isolation of protoplast.
    - d) Gene cloning in fungi.
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Roll No \_\_\_\_\_

[Total No. of Pages : 1

**PGIVS-004-B-21**  
**M.Sc. IV Semester Degree Examination**  
**BOTANY**  
**Plant Pathology and Plant Protection**  
**Paper : HCT - 4.1**

**Time : 3 Hours**

**Maximum Marks : 80**

***Instructions to Candidates:***

- 1) Answer any **Five** questions.
- 2) Question **No.1** is compulsory.

1. Answer in **one** or **two** sentences. **(10×2=20)**
  - a) Hypersensitive reaction
  - b) Antifungal proteins
  - c) Avirulence genes
  - d) Disease tetrahedron
  - e) Spore traps
  - f) Seed health testing
  - g) Downy mildew
  - h) Cercospora Personata
  - i) Benzimidazole
  - j) Arbuscules
2. Write an account on abiotic and biotic factors causing plant diseases. **(15)**
3. Discuss the significance of aerobiology in relation to epidemiology. **(15)**
4. Write an account on the bacterial and fungal diseases of tomato. **(15)**
5. Explain different approaches followed in integrated disease Management. **(15)**
6. Write short notes any three of the following. **(3×5=15)**
  - a) Pathogenesis related proteins
  - b) Applications of bioinformatics in plant pathology.
  - c) Post Harvest disease management of cereal crops.
  - d) Seed Inspection and certification.

Roll No \_\_\_\_\_

[Total No. of Pages : 2

**PGIVS-005-B-21**  
**M.Sc. IV Semester Degree Examination**  
**BOTANY**  
**Plant Breeding and Plant Biotechnology**  
**Paper : HCT - 4.2**

**Time : 3 Hours**

**Maximum Marks : 80**

**Instructions to Candidates:**

- 1) Answer any **five** Questions.
- 2) Question **No.1** is compulsory.

1. Answer in **one** or **two** sentences. (10×2=20)
  - i) Apomixis
  - ii) Back cross
  - iii) Somaclonal variation
  - iv) Budding
  - v) Organogenesis
  - vi) Anther culture
  - vii) CMS
  - viii) Bioreactor
  - ix) Protoplast
  - x) Cytokinin
2. Describe the concept of centre of origin of crop plants C primary & secondary? Enlist the various centers of origin of cultivated plants. (15)
3. Describe the various methods used in propagation of ornamental plants with its merit and demerit. (15)
4. Explain the role of anther culture in crop improvement. Add a note on its significance. (15)
5. Define somatic embryo. Describe the role of somatic embryogenesis in plant breeding. (15)