

**Government Degree College, Baramulla (Autonomous)**

**Term End External Examination 4th Semester (Session- July 2024)**

**Subject: Botany**

**Course No and Title: BOTC2422M/Mycology and Phytopathology**

**Time: 2.15 hours      Max Marks:100      Min. Marks:40**

**Section A: Objective Type Questions**

**Q1. Choose the appropriate Answer: (8x1.5=12)**

- i. The compounds synthesized by plants in response to microbial attack and physical injuries are called
  - A Endotoxins
  - B Phytoalexins
  - C Exotoxins
  - D Aminoglycosides
- ii. When a pathogen establishes itself in the host plant, the condition is known as
  - A Infection
  - B Infestation
  - C Colonization
  - D Both A & B
- iii. Damping off disease is primarily caused by
  - A *Rhizoctonia*
  - B *Pythium*
  - C *Botrytis*
  - D All of the above
- iv. Which of the following fertilizers predispose the paddy plants to blast infection
  - A Nitrogenous fertilizers
  - B Potassic and phosphatic manures
  - C Organic manures
  - D None of the above
- v. Citrus canker disease is caused by
  - A Viral pathogen
  - B Fungal pathogen
  - C Bacterial pathogen
  - D Algal pathogen
- vi. *Agrobacterium tumefaciens* cause
  - A Fire blight of apples
  - B Root knot disease
  - C *Apple scab*
  - D Crown gall disease
- vii. Plant quarantine regulations are enforced by
  - A A country
  - B A state
  - C A state or country
  - D None of the above

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through legislation

viii. Which of the following is used as universal anti-mitotic agent

- |                     |                   |
|---------------------|-------------------|
| A <i>Tricoderma</i> | B Penicillin      |
| C <i>TMV</i>        | D <i>Puccinia</i> |

**SECTION-B: DESCRIPTIVE TYPE QUESTIONS (Short Type)**

**Q2: Answer all the Questions (8 x 4 =32)**

- i. Define parasitism and pathogenicity.
- ii. Define infection and colonization.
- iii. What is meant by inoculum.
- iv. Write short note on mode of spread of *Alternaria solani*.
- v. Give the fundamental concept of disease triangle.
- vi. Enlist the symptoms of *Tobacco Mosaic Virus*.
- vii. Name four diseases controlled by plant quarantine.
- viii. Name various physical methods of plant disease control.

**SECTION – C: DESCRIPTIVE TYPE QUESTIONS (Medium Type)**

**Answer all the questions: (4 x 7=28)**

**Q3.** Discuss the role of temperature and humidity in predisposing plant diseases.

**OR**

Write a short note on Phytoalexins.

**Q4.** What are the symptoms and control measures of paddy blast?

**OR**

Briefly describe the etiology and control measures of late blight of potato.

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**Q5.** Describe symptoms and control measures of citrus canker disease.

OR

Explain symptoms and control measures of fire blight of apples.

**Q6.** Explain the general principles of plant quarantine.

OR

Give a brief account of integrated disease management.

**SECTION – D: DESCRIPTIVE TYPE QUESTIONS (Long Type)**

**Answer any two of the following: (2 x 14=28)**

**Q7.** Discuss the enzymes and toxins in relation to plant diseases.

**Q8.** Describe in detail the symptoms, etiology and control of *Apple scab*.

**Q9.** What are root knot infections? Describe the symptoms and control measures of root knot disease.

**Q10.** Briefly describe the chemical and biological methods of plant disease control.