



**SECTION A (30 Marks) Answer all questions**

1. Differentiate between 'seed infection' and 'seed infestation' with suitable examples. (3 marks)
2. Explain the role of the cuticle in pre-existing structural defense mechanisms in plants. (3 marks)
3. What is the hypersensitive response (HR) in plants, and how does it contribute to defense against pathogens? (3 marks)
4. Explain the difference between compound interest diseases and simple interest diseases in plant pathology. (3 marks)
5. What is the Disease Triangle, and how does it help in understanding plant disease development? (3 marks)
6. Outline the general principles of plant disease management and give an example of each principle. (3 marks)
7. Explain the principle of "Avoidance" in plant disease management and provide two examples of how it can be achieved. (3 marks)
8. Describe the importance of plant quarantine regulations in disease management, particularly with reference to domestic and foreign quarantine. (3 marks)
9. What is the role of biological control in managing plant diseases, and list two mechanisms by which biological control agents work? (3 marks)
10. How does the selection of geographical area influence disease management, and provide an example of a disease that is more severe in wet areas compared to dry areas? (3 marks)

**SECTION B (40 Marks) Answer any 2 questions**

11. Discuss the general principles of plant disease management, highlighting the importance of each principle in controlling plant diseases 20 marks
12. Analyze how the understanding of plant diseases evolved from superstitions to the identification of pathogens and their role in disease transmission. 20 marks
13. Define and discuss the relevance of the following terms disease, disorder, pathogen, parasite, pathogenicity, pathogenesis, sign, symptom, syndrome, biotroph, hemibiotroph, and necrotroph in understanding plant diseases and their management 20 marks
14. Explain the various sources of survival of plant pathogens, highlighting the mechanisms involved in their persistence and the role of these survival strategies in the initiation and spread of plant diseases. (20 marks)