I Fill in the blanks (10×1=10)
1. The Khaira disease of rice is due to the deficiency of
2. Pairing and pralining technique is adopted in banana for management of—disease
3. The proteins produced in plants due to pathogen infection is known as
4. The active ingredient present in neem is
5. The phenolic compound formed by interaction of host and pathogen is
6. Two major ingredients of plant cuticle areand
7. —— is a major vegetable pathogen which infects only juvenile tissues
8. —— is a widely used bacterial biocontrol agent in plant disease management
9. Application of—fertilizers enhance resistance of crop plants to diseases
10. —— is a seed borne pathogen of rice

II Write Short notes on ANY FIVE of the following (5×2=10)
1. Monocyclic and polycyclic disease
2. Phytosanitary certificate
3. Cultural practices for management of soil borne pathogens
4. Methods of seed treatment
5. Virus indexing
6. Heat in disease management
7. Apoplastic and symplastic movements of fungicides

III Answer ANY FIVE of the following (5×4=20)
1. Give an account of different types of fungicide formulations
2. Explain plant quarantine acts/regulations of India
3. Describe the modes of action of biocontrol agents
4. Give an account on various factors of disease forecasting
5. Differentiate between vertical and horizontal resistance
6. Explain pathogen derived resistance with methods for its development
7. Describe various principles of crop disease management

IV Write an essay on ANY ONE of the following (1×10=10)
1. Classification of fungicides based on chemical nature with examples. Explain modes of action of fungicides
2. Post infectious defense mechanism of plants