

Roll No.

Total Pages : 02

CMDQ/M-20

5695

PRINCIPLES OF PLANT PATHOLOGY

BOT-404(b)

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory.
Attempt *one* question from each Unit. All questions carry equal marks.

1. (a) Define host specific and non-host specific toxin with suitable examples.
- (b) What is induced resistance ?
- (c) What is parasexual reproduction ?
- (d) What is the difference between distribution and dissemination of plant pathogens ?
- (e) What do you mean by molecular-tools-based prediction ?
- (f) What is the effect of light in disease development ?
- (g) What are the applications of monoclonal antibodies in plant pathology ?

Unit I

2. How pectic enzymes and cellulolytic enzymes are used by pathogens in disease development ?

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3. Write notes on the following :
 - (a) Pre-existing biochemical defence mechanisms
 - (b) Phytoalexins
 - (c) Defence through hypersensitive reaction.

Unit II

4. Give an account of epidemiology and forecasting of Late blight of potato and Blast of rice in India.
5. What is Chemotherapy ? Describe the role of inorganic copper compounds and systemic fungicides in the control of plant pathogens.

Unit III

6. Describe the use and importance of the following techniques in plant pathology.
7. How do edaphic factors and nutrition affect the incidence of diseases ?

Unit IV

8. Write notes on the following :
 - (a) Aflatoxins
 - (b) Patulin.
9. Describe the genetics of host-pathogen interaction.

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