

4639

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4. Discuss in detail (any three) (5×3=15)

- (a) Serological and histochemical methods for disease diagnosis
- (b) History of Plant Pathology in India citing major contributions of any five plant pathologists
- (c) Disease Forecasting, its tools and significance
- (d) Late blight of Potato

5. (i) Write in detail about the rust of wheat

OR

White rust of crucifers, mentioning symptoms, disease cycle, recurrence and control. (10)

(ii) Write a note on classification of plant disease.

OR

(iii) Integrated Disease Management. (5)

(200)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 4639

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Unique Paper Code : 2164002006

Name of the Paper : Plant Health and Disease Diagnostics

Name of the Course : **B.Sc. Botany – General Elective**

Scheme/Mode : NEP: UGCF-2022

Semester : IV

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **four** questions in all including Question Number **1** which is compulsory.
3. **All** parts of a question must be answered together.
4. **All** questions carry equal marks.
5. Draw well-labelled diagrams and write the botanical name wherever necessary.

P.T.O.

1. (i) Name the Causal organisms for the following :
(1×5=5)

- (a) Angular Leaf Spot of Cotton
- (b) Early Blight of Potato
- (c) Yellow Stripe Rust of Wheat
- (d) Yellow Vein Mosaic of Bhindi
- (e) Loose Smut of Barley

(ii) Define the following (any five) (1×5=5)

- (a) Haustoria
- (b) Necrosis
- (c) Disease cycle
- (d) Epidemic
- (e) Quarantine
- (f) Hyperplasia

(iii) Expand the following (any two) (1×2=2)

- (a) GIS
- (b) GPS
- (c) PCR

(iv) Fill in the blanks (any three) (1×3=3)

- (a) When a rust fungi requires two hosts to complete its life cycle it is called as

(b) The ability of the pathogen to infect a host plant is called its

(c) The first fungicide used was

(d) The scientific study of spread and control of disease is termed as

2. Draw neat and well-labelled diagrams for the following
(any three) (5×3=15)

- (i) Disease cycle of Citrus Canker
- (ii) T.S. of crucifer leaf showing asexual stages of white rust
- (iii) Symptoms of Smut Diseases
- (iv) TS through Aecial cups of *Puccinia*

3. Write short notes on the following (any five)
(3×5=15)

- (a) Significance of plant diseases
- (b) Koch's postulates
- (c) Biological control of plant diseases
- (d) Disease Triangle
- (e) General symptoms of viral diseases
- (f) Cultural methods of disease control