

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 2999

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Unique Paper Code : 2162582401

Name of the Paper : Plant Pathology

Name of the Course : **B.Sc. ALS with Agrochemical and Pest Management**

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. Question No. **1** is compulsory.
3. Attempt **Four** questions in all including Question No. **1**.
4. **All** questions carry equal marks.
5. Attempt **all** parts of the question together.
6. Draw well labelled diagrams wherever necessary.

1. (a) Fill in the blanks (any five):

5x1=5

- (i) A disease that spreads throughout the plant body is called _____.
- (ii) Thickening of cell walls to prevent pathogen entry is an example of _____ defense
- (iii) The study of disease occurrence in populations is called _____.
- (iv) Exposure of soil to high temperature using sunlight is known as _____.
- (v) Macrocyclic rust fungi are distinguished by a complex life cycle that generally includes _____ distinct spore stages.
- (vi) Water-soaked lesions on leaves are a characteristic symptom of _____ disease.

(b) Select the True/False statement (any five):

5x1=5

- (i) Infection in loose smut occurs mainly through soil.
- (ii) The disease can be transmitted through infected seeds.
- (iii) White-fly is a major vector in transmitting vein clearing of bhindi.
- (iv) White rust develops best under dry and hot conditions.
- (v) The lesions are angular because they are restricted by leaf veins.
- (vi) Quarantine helps in preventing the entry of new plant pathogens into a region.

(c) Define any five of the following:

5x1=5

- (i) Disease cycle.
- (ii) Obligate parasite.
- (iii) Chlorosis.
- (iv) Virulence.
- (v) Heteroecious fungus.
- (vi) Incubation period..

P.T.O.

2. Differentiate between any **three** of the following:

3x5=15

- i) Sign and Symptoms
- ii) Resistance and Susceptibility.
- iii) Monocyclic and Polycyclic diseases.
- iv) Hypertrophy and Hyperplasia.
- v) Epidemic and Endemic diseases.

3. Draw well labelled diagram of any **three** of the following:

3x5=15

- i) V.S. of a leaf affected by late blight disease in potato.
- ii) Graphic life cycle of Vein clearing of Bhindi
- i) Disease cycle of loose smut of barley.
- ii) Life cycle of disease cycle of powdery mildew of pea.

4. Write short notes on any **three** of the following:

3x5=15

- i) Disease forecasting.
- ii) Control methods used to manage *Citrus canker*.
- iii) Epidemiology.
- iv) General symptoms caused by Tobacco mosaic disease.

5. Answer any **two** of the following:

2x7.5=15

- (a) Discuss the major criteria used for classifying plant diseases.
- (b) Briefly describe the symptoms, casual organism and control measure of any viral plant disease.
- (c) Discuss the role of biological control in plant disease management. Explain mechanisms like antibiosis, hyper-parasitism, and predation.