

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 1179

I

Unique Paper Code : 2163013005

Name of the Paper : Plant Pathology (DSE)

**Name of the Course : B.Sc. (H) Botany / B.Sc.
Life Science**

Semester : V

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** questions carry equal marks.
4. Draw diagrams wherever required.

1. (a) Define the following (**any five**) (1×5=5)

(i) Hyperparasite

(ii) Appressorium

P.T.O.

- (iii) Hypersensitive response (Hr)
- (iv) Cenocentrum
- (v) Epidemiology
- (vi) Haustorium

(b) Match the following (**any five**) : (1×5=5)

- | | |
|------------------------------|---|
| (i) Bengal famine | (a) SAR |
| (ii) Heteroecious life cycle | (b) Zoospore |
| (iii) Salicylic acid | (c) <i>Phytophthora infestans</i> |
| (iv) Motile spore | (d) <i>Trichoderma</i> |
| (v) Biocontrol fungus | (e) <i>Alternaria solani</i> |
| (vi) Early blight of potato | (f) <i>Puccinia graminis</i>
f. sp. <i>tritici</i> |

(c) Fill in the blanks : (1×5=5)

- (i) Enlargement of an organ or tissue due to an increase in size of its cells is called _____ .
- (ii) _____ is the network of hypha making up the body of fungi.

(iii) The interactions of the three components of disease, i.e. pathogen, host and _____ are represented as a triangle called the disease triangle.

(iv) A disease is classified as an _____ disease when it is constantly present and confined to a particular region.

(v) Vein clearing of Bhindi is caused by _____ .

2. Differentiate between (any two) (7.5×2=15)

(a) Yellow and brown rust of wheat

(b) Downy and Powdery mildew

(c) Early blight and Late blight of Potato

(d) Pandemic, epidemic and sporadic diseases

3. Draw diagrams (any three) (5×3=15)

(a) Life cycle of citrus canker

(b) Various structures formed by predator fungi

(c) V.S. of barberry leaf showing rust infection

- (d) Events that takes place during penetration of a pathogen into the host

4. Write short notes on (any three) (5×3=15)

(a) Physical methods of disease control

(b) Contributions of Louis Pasteur

(c) Forecasting of Plant diseases

(d) Koch's postulates

5. (a) What is Biological control? Discuss various terms like- antibiosis, ISR and hyper-parasitism. (7.5)

(b) Briefly describe the role of plant quarantine in control of diseases and its significance. (7.5)

6. Discuss about the causal organism, symptoms, disease cycle and control measures for Late blight of potato disease. (15)