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BOTANY

( Major )

Paper : 5.2

( Plant Pathology and Lichen )

Full Marks : 60

Time : 3 hours

*The figures in the margin indicate full marks  
for the questions*

Answer as directed :

1×7=7

(a) — is considered as the father of mycology and plant pathology in India.

(Fill in the blank)

(b) Plant disease is a product of interaction among pathogen, host and —.

(Fill in the blank)

(c) The grey blight disease of *Camellia sinensis* is caused by —.

(Fill in the blank)

(d) Name the causal organism of stem rust of wheat.

- (e) Name the disease of potato that was introduced in the Nilgiri Hill areas of India in between 1870 and 1880.
- (f) — is the causal organism of *Citrus canker*.

(Fill in the blank)

- (g) — broadly classified plant diseases into simple interest and compound interest diseases.

(Fill in the blank)

2. Write on/Answer the following briefly :  $2 \times 4 = 8$

- (a) Name three fungal diseases of potato.
- (b) Quarantine
- (c) Bordeaux mixture
- (d) Name two preexisting defense structures.

3. Write on/Answer the following :  $3 \times 5 = 15$

- (a) Describe disease cycle.
- (b) Compare and contrast between epidemic and pandemic diseases.
- (c) Describe local and systemic infections giving appropriate examples.
- (d) Role of foolish seedling disease of rice in gibberellin production
- (e) Anthropochory



Answer the following questions :  $10 \times 3 = 30$

- (a) Describe the symptoms, causal organisms and control measures of the powdery mildew disease of *Pisum sativum*. 10

Or

Discuss, in detail, the white rust disease of crucifers along with its control measures.

- (b) Give an account on the yellow mosaic disease of Bhindi and Tobacco mosaic disease. 10

Or

Discuss how prepenetration, penetration and postpenetration stages are the important ones for plant disease development by the pathogens.

- (c) Write a brief note on the economic importance and ecological significance of lichens.  $5+5=10$

Or

Describe the methods of transmission of viral diseases of plants. 10

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