

2014

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

1. Answer the following questions : $1 \times 7 = 7$

- (a) Name one ancient Indian holy book in which reference to plant diseases and their control devices are made.
- (b) Who is regarded as the 'Founder of Mycology and Plant Pathology' in India?
- (c) Which crop plant disease is directly related to the famous famine occurred in Ireland between 1845 and 1847?
- (d) What is chlorosis?

- (e) What is the causal organism of canker disease of citrus plants?
- (f) Name one fungal species that used as biocontrol agent.
- (g) What are soredia?

2. Answer the following questions : 2×4=8

- (a) What is the causal organism of powdery mildew of pea?
- (b) Differentiate between primary inoculum and secondary inoculum.
- (c) How are root-cap border cells related to the infection in soil-borne diseases?
- (d) What are the shot holes in necrotic symptoms?

3. Write short notes on any *three* of the following : 5×3=15

- (a) Penetration of pathogens to host
- (b) Host-specific toxins
- (c) Soil nutrients and disease development
- (d) Quarantines
- (e) Integrated Disease Management (IDM)

4. Give an account of symptoms, causal organism, etiology and control of late blight of potato. 2+2+2+4=10

Or

What are the rust diseases reported from India? Discuss the symptoms, etiology and control of black rust disease of wheat.

$3+2+2\frac{1}{2}+2\frac{1}{2}=10$

5. Give an account of cultural and biological methods of plant disease control. 10

Or

Write notes on the following : 5×2=10

(a) Gray blight of tea

(b) Tobacco Mosaic Virus (TMV)

6. Give an account of ecological and economic importance of the Lichens. 10

Or

Give an illustrated account of methods of reproduction met in Lichens.

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