

2019

B.Sc. (Honours)

5th Semester Examination

MICROBIOLOGY

Paper - DSE-2T

(Plant Pathology)

Full Marks : 40

Time : 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

1. Answer any *five* questions from the following.

5×2=10

- (a) What do you mean by crop certification?
- (b) Write the composition of Bordeaux mixture.
- (c) What is inoculum potential ?
- (d) Name atleast one pathogen that enter their host through (i) Stomata (ii) Root hair.

[Turn Over]

(2)

- (e) Distinguish between penetration and infection.
- (f) What is cross protection ?
- (g) State the role of toxins in development of vascular wilt syndrome.
- (h) What is hyperplastic symptom ?

Group - B

2. Answer any *four* questions from the following.

4×5=20

- (a) Describe two methods for dissemination of plant pathogens.
- (b) Discuss the concept of gene for gene relationship. Discuss schematically.
- (c) Write down the characteristics of avr-Gene Coded proteins. State the mechanism of R genes conferring Resistance to a plant against specific pathogens. 3+2
- (d) Write short note on (any *two*) : 2×2½
 - (i) Hast eradication.
 - (ii) Plant quarantine.
 - (iii) Soil sterilization by heat.

(3)

(e) What is Koch's postulates ? Write merits and demerits of this postulates. 2+3

(f) What is phytoalexin ? State its importance. 2+3

Group - C

3. Answer any *one* question from the following.

1×10=10

(a) Mention the casual organism of late blight of potato. Describe the symptoms, disease cycle and control measures of the disease. 1+3+3+3

(b) (i) Write the contribution of two scientists 5

(a) Anton De Bary

(b) Millardet

(ii) What are pathogenecity genes ? State its role in controlling Secondary metabolites.

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