

2018

BOTANY – HONOURS

Paper : CC-2

Full Marks : 50

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

1. Answer **any five** of the following : 2×5
- (a) What are PR-proteins?
 - (b) What is 'damping off' in Stem Rot of Jute?
 - (c) What is Hartig net?
 - (d) Distinguish between pandemic and epidemic diseases with examples.
 - (e) Name the different spore forms found in *Puccinia graminis tritici* and the respective host plants in which they are produced.
 - (f) Distinguish between crozier formation and clamp connection.
 - (g) Define systemic acquired resistance in plants.
 - (h) Distinguish between pathogenicity and pathogenesis.
2. Answer **any two** of the following :
- (a) What are the steps of parasexual cycle? How is it different from sexual cycle? 3+2
 - (b) What are foliose lichen? Mention the components of lichen thallus and give their ecological importance. 1+4
 - (c) Give a brief account of the post-penetration development in host by plant pathogens. 5
3. Answer **any three** of the following :
- (a) (i) What do you mean by anamorphic fungi? What type of spores do they produce?
 - (ii) Why is Oomycota considered as unique from other groups of fungi?
 - (iii) How does mycorrhiza help in forestry? (1+2)+3+4
 - (b) (i) Differentiate among sign, symptom and syndrome.
 - (ii) How do pathotoxins contribute in causing plant disease?
 - (iii) What do you mean by systemic fungicides? Give two examples. 3+4+(1+2)

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- (c) Give a brief illustrated account of the life cycle of *Synchytrium endobioticum*. Justify that it is an endobiotic holocarpic fungus. 8+2
- (d) (i) Discuss the role of phytoalexins in plant defence mechanism.
(ii) Briefly discuss the techniques followed in biological control of plant diseases. 5+5
- (e) (i) Name the causal organism for the disease Late Blight of Potato.
(ii) How the disease cycle operates for Late Blight of Potato?
(iii) What are the different predisposition factors for causing the disease and mention the control measures adopted for this pathogen? 1+3+(2+4)
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