

Roll No. :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

BFMS-403

M.Sc. (Final) Examination, 2023

BOTANY

Paper - VII(a)

(Advanced Plant Pathology-I)

Time : 3 Hours]

[Maximum Marks : 75

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

Section-B

(Marks : 5 × 5 = 25)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **5** marks.

Section-C

(Marks : 10 × 3 = 30)

Note :- Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

Section-A

1. (i) What do you mean by Sporadic disease ?
- (ii) Write any *four* pre-existing internal defence structures of the host.
- (iii) How early forecasting of disease is significant for farmers ?
- (iv) Define the term 'Virulence'.

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- (v) How to find the least count in micrometric method ?
- (vi) What do you know about soil fumigation ?
- (vii) Write the symptoms of witches broom disease.
- (viii) “The symptoms refers to death of the tissue at ground level, seedlings are usually attacked and infected tissue at ground level are disintegrated and die.” What kind of disease do these symptoms indicate ?
- (ix) Write the pathogen of Pegion-pea Wilt.
- (x) Name any plant disease caused by Neovossia Indica.

Section-B

2. Discuss the origin and evolution of parasitism. 2½+2½=5

Or

Discuss the varied and complex interaction among the host, pathogen, soil and other soil microorganisms. 5

3. Write a note on application of tissue culture technique in plant pathology. 5

Or

Describe the various elements that turn a plant disease into an epidemic. 5

4. What is a fungicide ? State the characteristics of an ideal fungicide. 1+4=5

Or

Write a note on seed transmission diseases. 5

5. Explain in short the stripe disease of barley. 5

Or

Describe Flag smut disease of wheat. 5

6. Describe the early blight disease of potato, giving symptoms, disease cycle and control. 2+2+1=5

Or

Give a detailed account of red-rot of sugarcane. 5

Section-C

7. Describe in detail the various stages of plant infection process.
8. Discuss the host specific toxins in relation to pathogenesis and disease resistance.
9. Describe in detail chemical methods of plant disease control.
10. Describe the symptoms, causal organism, disease cycle and methods of control of ergot disease of Bajra. 3+1+3+3=10
11. Describe in detail the Ascochyta blight disease of gram.