

This question paper contains 2 printed pages]

NY—231—2023

FACULTY OF SCIENCE AND TECHNOLOGY

M.Sc. (Second Year) (Fourth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(New/CBCS Pattern)

BOTANY

Paper XVIII

(Plant Pathology–III)

(Physiological and Molecular Plant Pathology)

(Monday, 11-12-2023)

Time : 2.00 p.m. to 5.00 p.m.

Time—Three Hours

Maximum Marks—75

N.B. :— (i) Attempt all questions.

(ii) All questions carry equal marks.

(iii) Draw neat and well labelled diagrams wherever necessary.

1. Describe in detail effect of infection on translocation of water and nutrients. 15

Or

Give an account on effect of infection on photosynthesis.

2. Describe in detail types and mode of action of pectolytic enzymes in pathogenesis. 15

Or

Give an account of chemical nature and mode of action of Fusaric acid.

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NY—231—2023

3. Describe in detail mechanism of variability in plant pathogens. 15

Or

Give an account of genetic variability in bacteria.

4. Describe in detail properties of a good cloning vector and add a note on Ti-plasmid. 15

Or

Write in detail classification of restriction endonucleases with applications.

5. Write short notes on (any *three*) : 15

- (a) Effect of pathogen on permeability of cell membrane
- (b) General account of pyricularin
- (c) Role of biotechnology in plant disease management
- (d) Strategies for development of transgenics.

NY—231—2023

2