

2025

5th Semester Examination

4-Years B.Sc. (Hons.) in Agriculture

Paper : AGS - 501

[Principles of Integrated Pest
and Disease Management]



Full Marks : 50

Time : Two 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

Answer any *five* questions : $2 \times 5 = 10$

1. Who first introduced the concept of IPM and in which year?
2. What is pest risk analysis?
3. What is pest resurgence?
4. Write any two modern techniques used for disease detection.
5. What is trap crop? Give an example that helps in pest management.

P.T.O.

(2)

6. State two objectives of crop disease forecasting.

7. Define bio-pesticide with one example.

8. What do you mean by horizontal resistance?

Group - B

Answer any *four* questions : 5×4=20

9. Discuss the importance and objectives of IPM in sustainable agriculture.

10. Explain different methods of measuring plant disease intensity.

11. Describe the development and validation of an IPM module.

12. Describe the importance of biological control agents in IDM programmes.

13. Describe safety measures and precautions in pesticide use.

14. Write short notes on the following : 1×5=5

- (i) Crop rotation
- (ii) Disease surveillance
- (iii) Botanicals in pest control
- (iv) Mass multiplication of *Trichoderma*
- (v) Pesticide residue



(3)

Group - C

Answer any *two* questions : 10×2=20

15. Explain survey, surveillance and forecasting of plant diseases. Discuss their importance in IPM. 5+5

16. Explain the concept of pest risk analysis and its relevance in international trade.

17. What is diagnosis? Describe in detail the methods of detection and diagnosis of plant diseases. 2+8

18. Write short notes on the following : 2×5=10

- (i) Epidemic pests
- (ii) Regular pests
- (iii) Major pests
- (iv) Key pests
- (v) Potential pests

