

M.Sc. (Previous) EXAMINATION - 2022

BOTANY

SIXTH PAPER

(Microbiology & Plant Pathology)

Time Allowed: Three Hours

Maximum Marks: 100

1. Each theory paper will have 9 questions, out of which a student has to attempt 5 questions and the questions No. 1 will be compulsory. The question No. 1 will carry 20 mark and will be of short type of questions with a limit of 20 words.
2. No supplementary answer book will be given to any candidate. Hence the candidates should write the answer precisely in the main answer book only.
3. All the part of one question should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book.

PART - A

1. Answer the following questions in short :-

2x10=20

- (a) Define term Halophiles.
- (b) What is meant by photo autotrophic ?
- (c) What is cynophage ?
- (d) Name the causes organism of Green Ear disease of Bajra.
- (e) What do you meant by moroclonal antibodies?
- (f) What is defense mechanism?
- (g) What are biosensors ?
- (h) What is causal organism of tundu disease of wheat ?
- (i) Give two properties of antibodies.
- (j) Define biopesticides.

PART - B

UNIT - I

2. Describe salient features and biological importance of cyanobacteria.

20

OR

3. Write a detailed note on isolation and purification of viruses.

20

UNIT - II

4. Give a detailed account of scope and applications of microbes in Industry. 20

OR

5. Write short notes on the following : 10+10=20

(a) Antigen properties.

(b) Biochips.

UNIT - III

6. Give a general account of diseases by plant pathogens. 20

OR

7. Write short notes on the following : 10+10=20

(a) IPM

(b) Development of transgenics.

UNIT - IV

8. Give an account on symptoms, etiology and control of the following diseases. 10+10=20

(a) Paddy blast disease

(b) Rust of wheat

OR

Give an account on symptoms, etiology and control of the following diseases. 10+10=20

(a) **Bhindi yellow mosaic**

(b) Root knot disease of vegetables.