

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) Agriculture

Semester	: II (New)	Term	: Second	Academic Year	: 2023-24
Course No.	: PATH 121	Title	: Fundamentals of Plant Pathology		
Credits	: 3 (2+1)				
Day & Date	: Friday, 17.05.2024	Time	: 10:00 to 13:00 hrs.	Total Marks	: 80

- Note :
1. Solve ANY EIGHT questions from SECTION 'A'.
 2. All questions from SECTION 'B' are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagram wherever necessary.

SECTION 'A'

- Q.1 ~~3~~ a) Define Plant Pathology. Write down the objectives of Plant Pathology.
b) Enlist different plant pathogenic organisms and write in brief about virus.
- Q.2 ~~3~~ a) Define Plant disease. Describe the economic importance of plant diseases.
b) Enlist the types of causes of plant diseases and explain biotic factors with suitable examples.
- Q.3 ~~2~~ a) Define Reproduction and enlist various sexual and asexual methods of reproduction in fungi. Explain in detail gametangial contact.
~~2~~ b) Enlist the principles of plant disease management and describe the role of exclusion in plant disease management.
- Q.4 a) Give a brief description of general morphological characteristics of bacteria and describe the flagellar arrangement of bacterial cell.
b) Define Symptoms. Enlist the various plant disease symptoms produced by biotic factors and explain any one in brief with suitable examples.
- Q.5 ~~4~~ a) Write in brief the classification of fungicides on the basis of methods of application.
~~2~~ b) Enlist the classification of plant diseases and explain plant diseases on the basis of geographical distribution.
- Q.6 a) Define Fungus with its general characteristics.
b) Describe the typical structure of fungus with diagram.
- Q.7 a) Enlist any four fungicides along with their mode of action.
b) Write the different formulations of fungicides with suitable examples.
- Q.8 ~~2~~ a) Explain the Binomial system of nomenclature.
~~2~~ b) Illustrate the concept of plant disease and describe disease triangle.

(P.T.O.)

Q.9 Write short notes on (Any Two):

- a) Morphology of nematode
- b) Sexual spore fruits in fungi
- c) Phanerogamic plant parasite

Q.10 Write important contribution of the following Scientists (Any Four):

- a) E.J. Butler b) J.F. Dastur c) K.C. Mehta d) T.J. Burrell e) John Needham

SECTION 'B'

Q.11 Define the following terms:

- 1) Protozoology
- 2) Disease tolerance
- 3) Pathogenicity
- 4) Pathogenesis
- 5) Hyperplasia
- 6) Hypertrophy
- 7) Biotroph
- 8) Thallus

Q.12 Fill in the blanks:

- 1) An example of partial root parasite is Strigae.
- 2) In ancient Rome (715-672 B.C.), an annual festival named Robigalia was held for blessings of the Rust God.
- 3) Hot water treatment method for the control of loose smut of wheat was given by Mason.
- 4) Generally an ascus contains 8 number of spores.
- 5) In bacteria, a cube of eight cells, is known as Sporangium.
- 6) Study of algae, is called as Phycology.
- 7) B.B. Mundkur wrote the book entitled Fungal Diseases.
- 8) Any agent that causes damage to plant, is called as Pathogen.

