ST. JOSEPH’S COLLEGE FOR WOMEN (AUTONOMOUS) VISAKHAPATNAM

# III SEMESTER **AGRICULTURE AND RURAL DEVELOPMENT** Time: 5hrs/week

PATH 271P (1)  **FUNDAMENTALS OF PLANT PATHOLOGY-II** Marks:50

## w.e.f 22AJ\_2022-2023 (Admitted batch) PRACTICAL SYLLABUS

**OBJECTIVES:**

* To study Pathogenesis
* To study about living entities that cause diseases in plants
* To study about mechanism by which the diseases causing agents

**COURSE OUTCOMES:**

**CO1:** Students will understand about Survival of plant pathogens and kinds of inoculum primary and secondary inoculum, pattern of survival

**CO2:** Students will understand about Toxins - pathotoxins, phytotoxins and vivotoxins , selective (host specific) and non-selective (host non-specific) toxins.

**CO3:** Students will understand about Dispersal of plant pathogens - active dispersal

**CO4:** Students will understand about Defense mechanisms in plants - pre-existing structural defense mechanisms.

**EXPERIMENTS:**

1. Acquaintance with various laboratory equipment.

2. Preparation of culture media Potato Dextrose Agar (PDA) for fungi and Nutrient Agar (NA) for bacteria.

3. Isolation of fungal and bacterial pathogens.

4. Preservation of disease samples - dry and wet methods.

5. Demonstration of Koch’s postulates for fungi.

6. Demonstration of Koch’s postulates for bacteria.

7. Study of different groups of fungicides and antibiotics.

8. Preparation of fungicides - Bordeaux mixture, Bordeaux paste and cheshunt Compound.

9. Methods of application of fungicides - soil application.

10. Methods of application of fungicides - seed treatment.

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