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

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

GPBR 211P (1)  **FUNDAMENTALS OF PLANT BREEDING** Marks:50

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

**OBJECTIVES:**

* To study Genetics in relation to plant breeding.
* To study about identifying the characteristics of self and cross pollinated crops
* To study about determine breeding methodology for plants.

**COURSE OUTCOMES:**

**CO1:** Students will understand about Historical developments, concept, nature and role of plant breeding

**CO2:** Students will understand about Modes of reproduction and apomixes, Asexual reproduction (vegetative reproduction and apomixis) and sexual reproduction.

**CO3:** Students will understand about Modes of pollination, Classification of crop species.

**CO4:** Students will understand about Hybridization techniques, Hybridization

**CO5:** Students will understand about Handling of segregating population, Pedigree method, Procedure

**EXPERIMENTS:**

1. Plant Breeder’s kit.

2. Study of germplasm of various crops.

3. Emasculation and hybridization techniques in self-pollinated crops – rice, groundnut.

4. Emasculation and hybridization techniques in self-pollinated crops – greengram, sesame.

5. Emasculation and hybridization techniques in cross pollinated crops – maize, castor.

6. Emasculation and hybridization techniques in often cross-pollinated crops – cotton, redgram.

7. Consequences of inbreeding on genetic structure of resulting populations.

8. Study of male sterility systems.

**\*\* \*\* \*\***