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

III SEMESTER **AGRICULTURE AND RURAL DEVELOPMENT** Time: 3hrs/week

SSAC 221P (1) **MANURES, FERTILIZERSAND SOIL FERTILITY MANAGEMENT** Marks:50

w.e.f AJ 2022-2023 **PRACTICAL SYLLABUS**

**Objectives**

* To Estimate of available N in soils
* To Estimate of K & S in plant samples
* To Identify acid radicals in fertilizers /salts

**Course Outcomes**

**CO1:** Students will understand about History of soil fertility and plant nutrition Concepts of soil fertility, soil productivity.

**CO2:** Students will understand about Essential nutrients, Classification and their functions in plants

**CO3:** Students will understand about Deficiency symptoms of nutrients, Corrective measures, Toxicity symptoms of different nutrients

**CO4:** Students will understand about Methods of application of nutrients under rainfed and irrigated Conditions

**CO5:** Students will understand about Introduction and importance of organic manures

**EXPERIMENTS**

1. Introduction to analytical instruments and principles-spectrometry and flame photometry
2. Estimation of available N in soils
3. Estimation of K & S in plant samples
4. Identification acid radicals in fertilizers /salts
5. Identification of basic radicals in fertilizer /salt
6. Estimation of N in Ammonium sulphate
7. Estimation of N in Urea and FYM
8. Estimation of water soluble P2O5 in SSP
9. Estimation of K in Muriate of potash or Sulphate of potash by using Flame photo meter

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