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

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

AGRO 203P(1)**IRRIGATION WATER MANAGEMENT, FARMING SYSTEMS AND** Marks:50

**SUSTAINABLE AGRICULTURE**

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

**Objectives**

* To Determine the bulk density
* To study about Lay out of surface irrigation methods
* To Determine the soil moisture content by gravimetric and volumetric method

**Course Outcomes**

**CO1:**Students will learn about Farming Systems, scope of farming system, importance and principles of farming system

**CO2:** Students will learn about Types of farming systems, advantages and limitations

**CO3:** Students will learn about Allied enterprises on sericulture, moriculture and silkworm rearing.

**CO4:**Students will learn about agro-forestry systems suitable for dry land farming

**CO5:** Students will learn about Problems related to soil, water and environment, adaptation and mitigation strategies and indicators of sustainability

**EXPERIMENTS**

1. Determination of bulk density
2. Determination of soil moisture content by gravimetric and volumetric method
3. Determination of infiltration rate
4. Determination of field capacity by field method
5. Measurement of irrigation water through flumes, weirs and V notches
6. Scheduling of irrigation by IW / CPE ratio method
7. Calculation of irrigation water requirements
8. Lay out of surface irrigation methods
9. Visit to micro irrigation systems in farmer fields.
10. Water management practices in rice, wheat and maize.
11. Water management practices in groundnut, sunflower and sugarcane.

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