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

B.SC.(HONORS) AGRICULTURE AND RURAL DEVELOPMENT WITH SINGLE MAJOR

# II SEMESTER AGRICULTURE AND RURAL DEVELOPMENT Time: 30hrs/week

AGRD151P(1)  **SOIL AND WATER CONSERVATION ENGINEERING**Marks:50

w.e.f AK 2023-2024 (Admitted batch) **PRACTICAL** **SYLLABUS**

**OBJECTIVES:**

* To study about natural resources management for sustainable agriculture
* To study about management of land and water
* To study about irrigation projects

**Course Outcome:**

**CO1**: Outline the soil and water conservation and causes of soil erosion.

**CO2**: Explain Wind erosion –Mechanics of wind erosion, types of soil movement.

**CO3:** Summarize Open channel hydraulics, soil loss estimation and components of micro irrigation

**EXPERIMENTS:**

1. Practicing survey- Principles and educating to use pacing technique for

measurement. **(2 hrs.)**

1. Area calculations through chain survey - GPS demo for tracking and area

measurement.   **(4 hrs.)**

1. Estimation of soil loss and calculation of erosion index. **(4 hrs.)**
2. Levelling concepts and practical utility in agriculture. **(2 hrs.)**
3. Water discharge measurements lab exercises for computing discharge. **(2 hrs.)**
4. Different irrigation pumps and their constructional differences. **(2 hrs.)**
5. Farm Pond construction and its design aspects. **(4 hrs.)**
6. Farm Pond and canal lining and its procedures. **(4 hrs.)**
7. Visit to nearby farm pond. **(4 hrs.)**

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