

# **SANT HIRDARAM GIRLS COLLEGE, BHOPAL**

## **Department of Biotechnology**

**Certificate Course: “15 Days Hands on training in Plant tissue culture techniques”**

**Academic Year- 2021-22**

### **Course Objectives:**

Plant Tissue culture is an important tool for both basic and applied aspects of plant biotechnology as well as its commercial applications. All techniques are skill based and upon systematic learning, can equip a person to effectively utilize the techniques in various areas like basic research, environmental issues and commercial applications. It is a valuable tool for research on crop improvement by biotechnology. Plant Tissue Culture is a practice used to propagate plants under sterile conditions, often used to produce clones of a plant. Different techniques in Plant Tissue culture offer advantages over traditional methods of propagation which includes the production of multiple clones of plants in the absence of seeds or pollinators necessary to produce seeds and mature plants. This course offers a comprehensive hands-on training for learning the basics with an insight to laboratory.

### **Course Outcome:**

The course is intended to share basic tissue culture techniques which include: 1. Principles and application of tissue culture; 2. Preparation of tissue culture media, sterilization; 3. Hands on training for various tissue culture techniques; and 4. maintenance of cultured plant cells

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**Course Content:** Course will cover Orientation lectures along with hands-on experience in a variety of plant tissue culture Techniques like media preparation, sterilization, explants preparation, aseptic inoculation, Callus induction, shoot induction, multiplication, Stock solutions and preparation of MS medium.

Undergraduate students of biotechnology, agriculture science who wish to learn plant tissue culture techniques can participate in this program

**Course Duration: - 15 Days**

**Fees:- 1500/-**

<b>Module</b>	<b>Content</b>	<b>Duration</b>
<b>Hands on training</b>	<b>Basic techniques in molecular biology</b>	<b>7 day</b>
<b>Hands on training</b>	<b>Plant tissue culture techniques</b>	<b>15 days</b>