

## Clarity Test Apparatus

### Principle:

Determines the **clarity or turbidity** of liquids by passing light through the sample and visually or instrumentally assessing **suspended particles or cloudiness**.

**Type:** Visual / Turbidimeter-based

**Light Source:** White light or LED (instrumental)

**Sample Container:** Glass vials, cuvettes, or test tubes

### Standard Operating Procedure (SOP)

#### 1. Pre-Operation

- Clean all glassware or cuvettes
- Ensure apparatus is properly aligned and calibrated
- Switch ON instrument (if digital/turbidimeter)

#### 2. Sample Preparation

- Fill sample container with test liquid
- Avoid air bubbles and fingerprints on glass
- For visual testing, use a **white background**

#### 3. Test Procedure

##### a. Visual Clarity Test:

- Hold sample against light or white background
- Observe for cloudiness, sediment, or suspended particles

##### b. Instrumental Test:

- Insert sample into turbidimeter or clarity meter
- Record turbidity or clarity value

#### 4. Completion

- Clean sample container immediately after use
- Switch OFF instrument
- Store apparatus properly

### Applications

- Quality control of syrups, herbal extracts, and liquids
- Detection of particulate contamination
- Pharmaceutical and AYUSH formulation testing
- Research and teaching laboratories

### Precautions

- Avoid contamination of sample
- Do not scratch glass containers
- Handle instrument carefully
- Use standard reference if instrument is used