Digital High-Precision Analytical Balance

Principle:
Measures mass of substances with **ultra-high precision** using an electromagnetic or strain-gauge system. Suitable for **microgram-level weighing**.

Capacity: 220 g
Readability: 0.00001 g (10 µg)
Pan Type: Glass or stainless steel
Display: Digital LCD

Standard Operating Procedure (SOP)

1. Pre-Operation

• Place balance on a **stable, vibration-free surface**
• Ensure balance is **level** using built-in bubble level
• Switch ON and allow **warm-up for 30 minutes**
• Calibrate using **internal or standard calibration weights**

2. Sample Weighing

• Open draft shield doors
• Tare the balance with container if required
• Add sample carefully using spatula or micro-scoop
• Avoid touching sample with hands
• Close draft shield doors while measuring
• Record weight after reading stabilizes

3. Completion

• Remove sample carefully
• Clean pan and surrounding area
• Switch OFF balance (if used occasionally)

Applications

• Weighing small quantities of powders, liquids, and herbal extracts
• Analytical and formulation research
• Pharmaceutical quality control
• Microanalysis and assay preparation

Precautions

• Avoid vibrations and air drafts
• Do not overload pan
• Use gloves or tweezers to handle samples

- Keep balance and surroundings dust-free
- Calibrate regularly