

## CY-501 UNIT OPERATIONS

**Gaseous systems:** Gas adsorption, principles, factors for controlling adsorption of gases, solution of gases, removal of gases from liquids, removal of gases from bulk solids and surfaces, degassing, sublimation, vacuum sublimation and applications

**Mechanical Separation And Beneficiation:** Crushing, Grinding, Mixing, Size Separation And Drying, Equipment for crushing, grinding and mixing, drying processes, tray, tunnels, drum and spray driers, equipment for determination of moisture in solids, liquids and gases. Screening sieves, equipment and use, gravity separation in settling process, removal of solid from gases, separation of coarse particle in liquid sedimentation and thickening, centrifugal and settling process, cyclone, hydrocyclone, sludge separation, dust filters, dust precipitators, electrostatic dust precipitators, colloidal particles and their removal, froth floatation, magnetic separation, scrubbers, chemical process, mud as resources, ion exchange separation, membrane separation, osmosis and reverse osmosis.

**Utilities in Industry:** Fuel, boilers, water, steam, air, fluid flow, pumps, heat exchange equipment.