## SUBJECT NO-BT41012, SUBJECT NAME- DOWNSTREAM PROCESSING LTP- 3-0-0, CRD- 3

## SYLLABUS :-

Introduction; An overview of bioseparation. Separation of cells and other insolubles from fermented broth. Filtration and microfiltration, centrifugation (batch, continuous, basket). Cell disruption: Physical methods (osmotic shock, grinding with abrasives, solid shear, liquid shear), Chemical methods (alkali, detergents), Enzymatic methods Products isolation: Extraction and adsorption method, precipitation (ammonium sulphate. Organic solvents, high molecular weight polymers), column chromatography; ultrafiltration., Products polishing: Crystallization and drying.