UNIT I

Definition of fluid, concept of continuum, density, specific weight, specific gravity, viscosity, viscosity laws, types of fluid and rheology, measurement of viscosity, application based numerical on viscosity-flow through pipe, lubrication, bearing, brake fluids, parallel plates, rotating shafts etc., vapor pressure surface tension, capillarity, compressibility.

UNIT II

Laws of fluid statics : forces acting on fluid element, Pascal's law, hydrostatics law, hydraulic ram

Pressure measurement : pressure scale, piezometer, barometer, manometer - simple, inclined, differential, micro manometer, inverted.

Forces acting on surfaces immersed in fluid : total pressure and center of pressure on submerged plane surfaces, curved surface submerged in liquid including numerical on dam, gate.

Buoyancy : flotation, stability of bodies.

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