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Hydraulic Machinery Laboratory (PG Lab)

List of Experiment

Sr. No.	Name of Experiment
Advanced Fluid Mechanics	
1.	Problems on continuity equation, acceleration, rotation, vorticity etc.
2.	Problems on velocity potential, stream function and flow net.
3.	Problems on energy and momentum equations.
4.	Problems on laminar flow, dimensional analysis and drag on immersed bodies.
5.	Problems on boundary layer theory.
6.	Problems on turbulent flow
Irrigation Water Management	
1.	Assignment on computation of consumptive use.
2.	Comparative study of different methods of irrigation.
3.	Hydraulic design of drip / sprinkler irrigation system.
4.	Assignment on different methods of measurement of irrigation water.
5.	Assignment on scheduling of Irrigation
6.	Case study on reclamation of salt affected land.
Sediment Transport and River Engineering	
1.	Assignments base on computation of geometric standard deviation and Crammer's uniformity coefficient.
2.	Assignment on different bed forms and their significance.
3.	Assignment on bed load and suspended load computation.
4.	Design of stable channels by Laceys and Kennedys theory.
5.	Assignment on computation of degradation and aggradation in alluvial channels
6.	Assignment on design of river training works.
Optimization in Hydraulics	
1.	Problems on Linear Programming (Graphical, Simplex, Big M, and Two phase Methods)
2.	Problems on Transportation and Assignment
3.	Problems on Non-linear Programming (Unconstrained one-dimensional search methods:
4.	Dichotomous search, Fibonacci, Golden section; Multivariable unconstrained methods:
5.	Gradient techniques, steepest ascent, descent methods, Newton's method)

Size = 2' X 3 '

Qty = 1

Bharati Vidyapeeth (Deemed to be University)

College of Engineering, Pune.

Department of Civil Engineering

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Hydraulic Machinery Laboratory

List of Equipment

Sr. No.	Name of Equipment
1.	Kaplan turbine
2.	Pelton Wheel
3.	Centrifugal Pump
4.	Reciprocating pump
5.	Tilting Flume 10m
6.	Tilting Flume 20m

Size = 2' X 2.5 '

Qty = 1