

PNS SCHOOL OF ENGG. & TECH., MARSHAGHAI
DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

SUBJECT: CIVIL ENGINEERING LABORATORY-II (5TH SEM)

**NAME OF THE LECTURER: Er. SOUDAGAR
BEHERA**

TESTS ON SOIL	Ex-1	Determination of Specific gravity of Soil by Pycnometer /Density bottle.
	Ex-2	Determination of Field Density of Soil by Core Cutter Method.
	Ex-3	Determination of Particle Size gradation of sand/Gravel by sieve analysis.
	Ex-4	Wet mechanical analysis using pipette method for clay and silt.
	Ex-5	(a)Determination of Liquid Limit by soil by Casagrande's apparatus.
	Ex-6	(b)Determination of Plastic limit of soil.
	Ex-7	Determination of Shrinkage limit of soil.
	Ex-8	Determination of MDD & OMC of soil by using modified Proctor Test.
	Ex-9	Determination of CBR value using Laboratory CBR Testing device.
	Ex-10	Determination of c and ϕ of soil by triaxial testing device.
	Ex-11	Determination of coefficient of permeability of soil by constant head method.
HYRAULICS LABORATORY:	Ex-12	Verification of Bernoulli's Theorem
	Ex-13	Determination of coefficient of Discharge of a rectangular notch fitted in open Channel.
	Ex-14	Determination of coefficient of Discharge of a Venturimeter, Orificemeter fitted in a pipe
	Ex-15	Determination of head Loss due to friction and coefficient of friction for flow through pipe.
TRANSPORTATION LABORATORY:	Ex-16	Penetration Test of Bitumen.
	Ex-17	Ductility Test of Bitumen.
	Ex-18	Viscosity Test of Bitumen.
	Ex-19	Bitumen content by centrifuge extractor.
PUBLIC HEALTH ENGINEERING LABORATORY	Ex-20	Determination of Turbidity of water Sample using Turbidimeter/Nephelometer/Jackson's Candle Turbidimeter.
	Ex-21	Determination of pH of Water sample using (a) pH – meter (b) colour Comparator.
	Ex-22	Determination of Chloride content of a Water sample using method of titration.
	Ex-24	Determination of dissolved oxygen in a water sample.
	Ex-25	Determination of bacteriological quality of water sample by Coliform test.

Soudagar Behera

Sudeepa Mishra

SIGNATURE OF LECTURER

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