## **LESSON PLAN**

## DEPARTMENT OF MECHANICAL ENGINEERING, ITT, CHOUDWAR

**SUBJECT:** MECHANICAL ENGINEERING LABORATORY-I (PR-2) **Periods:**4 per week **SEMESTER:**3<sup>rd</sup>

NAME OF FACULTY: Manoranjan Sahoo, Instr (Mech) No. of weeks: 15

Week	Class Day	Theory / Practical Topics
1st	1 <sup>st</sup>	Determine end reactions in a simply supported beam using parallel force
		apparatus.
	2 <sup>nd</sup>	Determine end reactions in a simply supported beam using parallel force
		apparatus.
$2^{\text{nd}}$	1 <sup>st</sup>	Determine end reactions in a simply supported beam using parallel force
		apparatus.
	2 <sup>nd</sup>	Determination of Young's modulus using Searle's apparatus
$3^{\rm rd}$	1 <sup>st</sup>	Determination of Young's modulus using Searle's apparatus
	2 <sup>nd</sup>	Determination of Young's modulus using Searle's apparatus
4 <sup>th</sup>	1 <sup>st</sup>	Determination of Young's modulus using Searle's apparatus
	2 <sup>nd</sup>	Determination of torsional rigidity of the shaft using torsion testing machine
5 <sup>th</sup>	1 <sup>st</sup>	Determination of torsional rigidity of the shaft using torsion testing machine
	2 <sup>nd</sup>	Determination of torsional rigidity of the shaft using torsion testing machine
6th	1 <sup>st</sup>	Determination of torsional rigidity of the shaft using torsion testing machine
	2 <sup>nd</sup>	Determination of salient points (Young's modulus, yield point, fracture
		point) from stress- strain curve using Universal Testing Machine
7th	1 <sup>st</sup>	Determination of salient points (Young's modulus, yield point, fracture
		point) from stress- strain curve using Universal Testing Machine
	2 <sup>nd</sup>	Determination of salient points (Young's modulus, yield point, fracture
		point) from stress- strain curve using Universal Testing Machine
8th	1 <sup>st</sup>	Determination of salient points (Young's modulus, yield point, fracture
		point) from stress- strain curve using Universal Testing Machine
	2 <sup>nd</sup>	Determination of hardness number by Rockwell/Vickers hardness testing
		machine
9th	1 <sup>st</sup>	Determination of hardness number by Rockwell/Vickers hardness testing
		machine
	2 <sup>nd</sup>	Determination of hardness number by Rockwell/Vickers hardness testing
	,	machine
10th	1 <sup>st</sup>	Determination of toughness using Impact testing machine (Charpy/Izod)
	2 <sup>nd</sup>	Determination of toughness using Impact testing machine (Charpy/Izod)
11th	1 <sup>st</sup>	Determination of toughness using Impact testing machine (Charpy/Izod)
	2 <sup>nd</sup>	Determination of toughness using Impact testing machine (Charpy/Izod)
12th	1 <sup>st</sup>	Determination of Flash point and fire point
	2 <sup>nd</sup>	Determination of Flash point and fire point
13th	1 <sup>st</sup>	Determination of Flash point and fire point
	2 <sup>nd</sup>	Determination of Flash point and fire point
14th	1 <sup>st</sup>	Joule's experiment
	2 <sup>nd</sup>	Joule's experiment
15th	1 <sup>st</sup>	Joule's experiment
	2 <sup>nd</sup>	Revision