GOVERNMENT POLYTECHNIC JAJPUR
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GOVERNMENT POLYTECHNIC JAJPUR

DEPARTMENT OF MECHANICAL ENGINEERING

LESSON PLAN (2022-2023)

Discipline: Electrical	**Semester: 3RD**	**Name of the Teaching faculty: Kedarnath Jena**
Subject: ME LAB	**No of Days/Week class alloted: 3**	**Semester from Date: 15.09.2022 To Date: 22.12.2022** **No of weeks: 15**

Week	Class Day	Topics
1st	2nd (3p), Gr 2	Determine M. A, V.R and efficiency of screw jack .
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
		iv) Taking readings and calculates M.A, V.R and Efficiency by students
2nd	1st (3p), Gr 1	Determine M. A, V.R and efficiency of screw jack .
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
		iv) Taking readings and calculates M.A, V.R and Efficiency by students
	2nd (3p), Gr 2	i) Record check and viva.
		Determine Co-efficient of friction of bearing.
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
3rd	2nd (3p), Gr 1	i) Record check and viva.
		Determine Co-efficient of friction of bearing.
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
	3rd (3p), Gr 2	i) Taking readings and calculate Co-efficient of friction by students
		ii) Record check and viva.
4th	2nd (3p), Gr 1	i) Taking readings and calculate Co-efficient of friction by students
		ii) Record check and viva.
	3rd (3p), Gr 2	Determine Youngs modulus by Searles apparatus.
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
		i) Taking readings and calculate Youngs modulus by students
5th	2nd (3p), Gr 1	Determine Youngs modulus by Searles apparatus.
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
		i) Taking readings and calculate Youngs modulus by students
		i) Record check and viva.
		Determine M. A, V.R and efficiency of wheel train .

	3rd (3p), Gr 2	i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
6th	2nd (3p), Gr 1	i) Record check and viva.
		Determine M. A, V.R and efficiency of wheel train .
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
	3rd (3p), Gr 2	i) Taking readings and calculate M. A, V.R and efficiency by students
		ii) Record check and viva.
7th	2nd (3p), Gr 1	i) Taking readings and calculate M. A, V.R and efficiency by students
		ii) Record check and viva.
	3rd (3p), Gr 2	Determination of Bending stress in beam using strain gauge.
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
		iv) Taking readings and calculate Bending stress by students
8th	2nd (3p), Gr 1	Determination of Bending stress in beam using strain gauge.
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
		iv) Taking readings and calculate Bending stress by students
	3rd (3p), Gr 2	i) Record check and viva.
		Study of Universal Testing Machine and determine tensile stress and Youngs modulus of M.S specification.
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
9th	2nd (3p), Gr 1	i) Record check and viva.
		Study of Universal Testing Machine and determine tensile stress and Youngs modulus of M.S specification.
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
	3rd (3p), Gr 2	i) Taking readings and calculate tensile stress and youngs modulus by students
		ii) Record check and viva.
10th	2nd (3p), Gr 1	i) Taking readings and calculate tensile stress and youngs modulus by students
		ii) Record check and viva.
	2nd (3p), Gr 2	Study of pressure measuring devices such as (a) Piezometer(b) Simple manometer.
		i) Construction.
		ii) Working.
		iii) Record check and viva.
		Study of pressure measuring devices such as (a) Piezometer(b) Simple manometer.

11th	2nd (3p), Gr 1	i) Construction.
		ii) Working.
		i) Record check and viva.
	2nd (3p), Gr 2	Study of venturimeter.
		i) Construction.
		ii) Working.
		i) Record check and viva.
12th	2nd (3p), Gr 1	Study of venturimeter.
		i) Construction.
		ii) Working.
		i) Record check and viva.
	2nd (3p), Gr 2	Verification of bernoulis theorem.
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
		iv) Taking readings, calculate and verify bernoulis theorem by students
13th	2nd (3p), Gr 1	Verification of bernoulis theorem.
		i) Aim of the expt, Theory
		ii) Tools and Equipments required
		iii) Demonstration
		iv) Taking readings, calculate and verify bernoulis theorem by students
	2nd (3p), Gr 2	Model study of Centrifugal pumps, Francies, Kaplan and pelton wheel turbines.
		i) Construction.
		ii) Working.
		i) Record check and viva.
14th	2nd (3p), Gr 1	Model study of Centrifugal pumps, Francies, Kaplan and pelton wheel turbines.
		i) Construction.
		ii) Working.
		i) Record check and viva.
	2nd (3p), Gr 2	Study of Cochran Boiler and demonstration of Steam engine.
		i) Construction.
		ii) Working.
		i) Record check and viva.
15th	2nd (3p), Gr 1	Study of Cochran Boiler and demonstration of Steam engine.
		i) Construction.
		ii) Working.
		i) Record check and viva.
	2nd (3p), Gr 2	Study and Demonstration of Diesel engine and Petrol engine.
		i) Construction.
		ii) Working.
		i) Record check and viva.
16th	2nd (3p), Gr 1	Study and Demonstration of Diesel engine and Petrol engine.
		i) Construction.
		ii) Working.
		i) Record check and viva.