

DEPARTMENT OF MECHANICAL ENGINEERING
LESSON PLAN

Discipline: Mechanical	Semester: 4th	Name of the Teaching faculty: Suprava Behera
Subject: ME LAB-II	No of Days/Week class alloted: 2	Semester from Date: 14.02.2023 No of weeks: To Date: 23.05.2023
Week	Class Day	Topics
1st	1st(3p, Gr 1)	Study of 2-S, 4-S petrol & diesel engine models i) Aim of the expt, Basic theory, parts of engine model
	1st(3p, Gr 2)	Study of 2-S, 4-S petrol & diesel engine models i) Aim of the expt, theory, parts of engine model
	2nd(3p, Gr 1)	Study of 2-S, 4-S petrol & diesel engine models i) Operating principle (ii) Animations and videos of 2-S and 4-S petrol and diesel engine models.
	2nd(3p, Gr 2)	Study of 2-S, 4-S petrol & diesel engine models i) Operating principle (ii) Animations and videos of 2-S and 4-S petrol and diesel engine models.
2nd	1st(3p, Gr 1)	Study of 2-S, 4-S petrol & diesel engine models i) Record submission and checking ii) Viva, assessment
	1st(3p, Gr 2)	Study of 2-S, 4-S petrol & diesel engine models i) Record submission and checking ii) Viva, assessment
	2nd(3p, Gr 1)	Determination of the brake thermal efficiency of single cylinder petrol engine i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
	2nd(3p, Gr 2)	Determination of the brake thermal efficiency of single cylinder petrol engine i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
3rd	1st(3p, Gr 1)	Determination of the brake thermal efficiency of single cylinder petrol engine i) Machine handling and Precautions ii) Taking readings, Observations table and calculation of the brake thermal efficiency by students.
	1st(3p, Gr 2)	Determination of the brake thermal efficiency of single cylinder petrol engine i) Machine handling and Precautions ii) Taking readings, Observations table and calculation of the brake thermal efficiency by students.
	2nd(3p, Gr 1)	Determination of the brake thermal efficiency of single cylinder petrol engine i) Record submission and checking ii) Viva, assessment
	2nd(3p, Gr 2)	Determination of the brake thermal efficiency of single cylinder petrol engine i) Record submission and checking ii) Viva, assessment
4th	1st(3p, Gr 1)	Determination of the brake thermal efficiency of single cylinder diesel engine. i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
	1st(3p, Gr 2)	Determination of the brake thermal efficiency of single cylinder diesel engine. i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
	2nd(3p, Gr 1)	Determination of the brake thermal efficiency of single cylinder diesel engine. i) Machine handling and Precautions ii) Taking readings, Observations table and calculation
	2nd(3p, Gr 2)	Determination of the brake thermal efficiency of single cylinder diesel engine. i) Machine handling and Precautions ii) Taking readings, Observations table and calculation

5th	1st(3p, Gr 1)	Determination of the brake thermal efficiency of single cylinder diesel engine.
		i) Record submission and checking ii) Viva, assessment
	1st(3p, Gr 2)	Determination of the brake thermal efficiency of single cylinder diesel engine.
		i) Record submission and checking ii) Viva, assessment
2nd(3p, Gr 1)	Determination of the B.H.P, I.H.P BSFC of a multi cylinder engine by Morse test.	
	i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical	
2nd(3p, Gr 2)	Determination of the B.H.P, I.H.P BSFC of a multi cylinder engine by Morse test.	
	i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical	
6th	1st(3p, Gr 1)	Determination of the B.H.P, I.H.P BSFC of a multi cylinder engine by Morse test.
		i) Machine handling and Precautions ii) Taking readings, Observations table and calculation of B.H.P, I.H.P BSFC of a multi cylinder engine by students.
	1st(3p, Gr 2)	Determination of the B.H.P, I.H.P BSFC of a multi cylinder engine by Morse test.
		i) Machine handling and Precautions ii) Taking readings, Observations table and calculation of B.H.P, I.H.P BSFC of a multi cylinder engine by students.
2nd(3p, Gr 1)	Determination of the B.H.P, I.H.P BSFC of a multi cylinder engine by Morse test.	
	i) Record submission and checking ii) Viva, assessment	
2nd(3p, Gr 2)	Determination of the B.H.P, I.H.P BSFC of a multi cylinder engine by Morse test.	
	i) Record submission and checking ii) Viva, assessment	
7th	1st(3p, Gr 1)	Determination of the Mechanical efficiency of an air Compressor.
		i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
	1st(3p, Gr 2)	Determination of the Mechanical efficiency of an air Compressor.
		i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
2nd(3p, Gr 1)	Determination of the Mechanical efficiency of an air Compressor.	
	i) Machine handling and Precautions ii) Taking readings, Observations table and calculation of the Mechanical efficiency by students.	
2nd(3p, Gr 2)	Determination of the Mechanical efficiency of an air Compressor.	
	i) Machine handling and Precautions ii) Taking readings, Observations table and calculation of the Mechanical efficiency by students.	
8th	1st(3p, Gr 1)	Determination of the Mechanical efficiency of an air Compressor.
		i) Record submission and checking ii) Viva, assessment
	1st(3p, Gr 2)	Determination of the Mechanical efficiency of an air Compressor.
		i) Record submission and checking ii) Viva, assessment
2nd(3p, Gr 1)	Study of pressure measuring devices (manometer, Bourdon tube pressure gauge)	
	i) Aim of the expt, Basic theory, types of pressure measuring devices ii) Functions of different pressure measuring devices	
2nd(3p, Gr 2)	Study of pressure measuring devices (manometer, Bourdon tube pressure gauge)	
	i) Aim of the expt, Basic theory, types of pressure measuring devices ii) Functions of different pressure measuring devices	

9th	1st(3p, Gr 1)	Study of pressure measuring devices (manometer, Bourdon tube pressure gauge) i) Record submission and checking ii) Viva, assessment
	1st(3p, Gr 2)	Study of pressure measuring devices (manometer, Bourdon tube pressure gauge) i) Record submission and checking ii) Viva, assessment
	2nd(3p, Gr 1)	Verification of Bernoulli's theorem i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
	2nd(3p, Gr 2)	Verification of Bernoulli's theorem i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
10th	1st(3p, Gr 1)	Verification of Bernoulli's theorem i) Machine handling and Precautions ii) Taking readings, Observations table and calculation of the total head of incompressible fluid (pressure head+kinetic head+potential head) by students.
	1st(3p, Gr 2)	Verification of Bernoulli's theorem i) Machine handling and Precautions ii) Taking readings, Observations table and calculation of the total head of incompressible fluid (pressure head+kinetic head+potential head) by students.
	2nd(3p, Gr 1)	Verification of Bernoulli's theorem i) Record submission and checking ii) Viva, assessment
	2nd(3p, Gr 2)	Verification of Bernoulli's theorem i) Record submission and checking ii) Viva, assessment
11th	1st(3p, Gr 1)	Determination of Cd from venturimeter i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
	1st(3p, Gr 2)	Determination of Cd from venturimeter i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
	2nd(3p, Gr 1)	Determination of Cd from venturimeter i) Machine handling and Precautions ii) Taking readings, Observations table and calculation by students
	2nd(3p, Gr 2)	Determination of Cd from venturimeter i) Machine handling and Precautions ii) Taking readings, Observations table and calculation by students
12th	1st(3p, Gr 1)	Determination of Cd from venturimeter i) Record submission and checking ii) Viva, assessment
	1st(3p, Gr 2)	Determination of Cd from venturimeter i) Record submission and checking ii) Viva, assessment
	2nd(3p, Gr 1)	Determination of Cc, Cv, Cd from orifice meter i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
	2nd(3p, Gr 2)	Determination of Cc, Cv, Cd from orifice meter i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical

13th	1st(3p, Gr 1)	Determination of Cc, Cv, Cd from orifice meter i) Machine handling and Precautions ii) Taking readings, Observations table and calculation by students
	1st(3p, Gr 2)	Determination of Cc, Cv, Cd from orifice meter i) Machine handling and Precautions ii) Taking readings, Observations table and calculation by students
	2nd(3p, Gr 1)	Determination of Cc, Cv, Cd from orifice meter i) Record submission and checking ii) Viva, assessment
	2nd(3p, Gr 2)	Determination of Cc, Cv, Cd from orifice meter i) Record submission and checking ii) Viva, assessment
14th	1st(3p, Gr 1)	Determination of the Darcy's coefficient from flow through pipe i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
	1st(3p, Gr 2)	Determination of the Darcy's coefficient from flow through pipe i) Aim of the expt, theory, procedure, precautions ii) Demonstration to conduct practical
	2nd(3p, Gr 1)	Determination of the Darcy's coefficient from flow through pipe i) Machine handling and Precautions ii) Taking readings, Observations table and calculation by students
	2nd(3p, Gr 2)	Determination of the Darcy's coefficient from flow through pipe i) Machine handling and Precautions ii) Taking readings, Observations table and calculation by students
15th	1st(3p, Gr 1)	Determination of the Darcy's coefficient from flow through pipe i) Record submission and checking
	1st(3p, Gr 2)	Determination of the Darcy's coefficient from flow through pipe i) Record submission and checking
	2nd(3p, Gr 1)	Determination of the Darcy's coefficient from flow through pipe i) Viva, assessment
	2nd(3p, Gr 2)	Determination of the Darcy's coefficient from flow through pipe i) Viva, assessment

S. Behar
13.02.23
Signature of faculty