

GOVERNMENT POLYTECHNIC JAJPUR
At/ Po: Ragadi, Block: Korei, Dist.: Jajpur, Odisha- 755019
DEPARTMENT OF MINING ENGINEERING
LESSON PLAN

Discipline: MINING	Semester: 3 rd	Name of the Teaching: Suprava Behera	
Subject: MOM LAB	No of Days/Week class alloted:2	Semester starts from Date: 15/09/2022 To 22/12/2022 weeks: 15	No of
Week	Class Day	Topics	
1st	1st (3p), Gr-1 & Gr-2	Bernoulli's Theorem by Bernoulli's Verification Apparatus.	
		i) Aim of the expt, theory, procedure (ii) Details of machine parts, machine handling and precautions	
	2nd (3p), Gr-1 & Gr-2	Bernoulli's Theorem by Bernoulli's Verification Apparatus.	
		i) setting of machine and how to take readings (Demo) ii) taking readings for Bernoulli's Theorem by students	
2nd	1st (3p), Gr-1 & Gr-2	Bernoulli's Theorem by Bernoulli's Verification Apparatus.	
	2nd (3p), Gr-1 & Gr-2	i) calculations for Bernoulli's Theorem by students	
		Bernoulli's Theorem by Bernoulli's Verification Apparatus.	
3rd	1st (3p), Gr-1 & Gr-2	Determine rate of flow of air through the air flow bench pitot tube set-up.	
		i) Aim of the expt, theory, procedure (ii) Details of machine parts, machine handling and precautions	
	2nd (3p), Gr-1 & Gr-2	Determine rate of flow of air through the air flow bench pitot tube set-up.	
		i) setting of machine and how to take readings (Demo) ii) taking readings for Venturimeter by students	
4th	1st (3p), Gr-1 & Gr-2	Determine rate of flow of air through the air flow bench pitot tube set-up.	
	2nd (3p), Gr-1 & Gr-2	i) calculations for Venturimeter by students	
		Determine rate of flow of air through the air flow bench pitot tube set-up.	
5th	1st (3p), Gr-1 & Gr-2	Conduct tensile test of a mild steel specimen and plot stress-stain curve, show salient points on it.	
		i) Aim of the expt, theory, procedure (ii) Details of machine parts, machine handling and precautions	
	2nd (3p), Gr-1 & Gr-2	Conduct tensile test of a mild steel specimen and plot stress-stain curve, show salient points on it.	
		i) Tools and equipments required ii) setting of machine and how to take readings and plot stress-strain curve (Demo)	
6th	1st (3p), Gr-1 & Gr-2	Conduct tensile test of a mild steel specimen and plot stress-stain curve, show salient points on it.	
	2nd (3p), Gr-1 & Gr-2	iii) taking readings for tensile test of a mild steel and plot stress-strain curve by students	
		Conduct tensile test of a mild steel specimen and plot stress-stain curve, show salient points on it.	
7th	1st (3p), Gr-1 & Gr-2	i) calculations for tensile test of a mild steel specimen by students	
		i) viva, record submission and checking	
	2nd (3p), Gr-1 & Gr-2	Determine volumetric efficiency of air- compressor.	
		i) Aim of the expt, theory, procedure (ii) Details of machine parts, machine handling and precautions	
	1st (3p), Gr-1 & Gr-2	Determine volumetric efficiency of air- compressor.	
		i) setting of machine and how to take readings (Demo)	

8th		ii) taking readings for air-compressor by students
	2nd (3p), Gr-1 & Gr-2	Determine volumetric efficiency of air- compressor. i) calculations for volumetric efficiency of air- compressor by students
9th	1st (3p), Gr-1 & Gr-2	Determine volumetric efficiency of air- compressor. i) viva, record submission and checking
	2nd (3p), Gr-1 & Gr-2	Study of 2-stroke & 4-stroke diesel engines. i) Aim of the expt, theory, working principle ii) Animations and videos for working principle 2-stroke and 4-stroke diesel engines
10th	1st (3p), Gr-1 & Gr-2	Study of 2-stroke & 4-stroke diesel engines. i) Details of diesel engine parts and classification
	2nd (3p), Gr-1 & Gr-2	Study of 2-stroke & 4-stroke diesel engines. ii) Animations and videos for working principle 2-stroke and 4-stroke diesel engines
11th	1st (3p), Gr-1 & Gr-2	Study of 2-stroke & 4-stroke diesel engines. i) Demonstarion of experiment ii) application of 2-stroke & 4-stroke diesel engines.
	2nd (3p), Gr-1 & Gr-2	Study of 2-stroke & 4-stroke diesel engines. i) viva, record submission and checking
12th	1st (3p), Gr-1 & Gr-2	Conduct I/C engine testing on single cylinder diesel engine & find out I.H.P., B.H.P. & mechanical efficiency. i) Aim of the expt, theory, procedure
	2nd (3p), Gr-1 & Gr-2	Conduct I/C engine testing on single cylinder diesel engine & find out I.H.P., B.H.P. & mechanical efficiency. i) Details of diesel engine parts, machine handling and precautions
13th	1st (3p), Gr-1 & Gr-2	Conduct I/C engine testing on single cylinder diesel engine & find out I.H.P., B.H.P. & mechanical efficiency. i) setting of machine and how to take readings (Demo)
	2nd (3p), Gr-1 & Gr-2	Conduct I/C engine testing on single cylinder diesel engine & find out I.H.P., B.H.P. & mechanical efficiency. i) taking readings for single cylinder diesel engine by students
14th	1st (3p), Gr-1 & Gr-2	Conduct I/C engine testing on single cylinder diesel engine & find out I.H.P., B.H.P. & mechanical efficiency. i) calculations for I.H.P., B.H.P. & mechanical efficiency of single cylinder diesel engine by students
	2nd (3p), Gr-1 & Gr-2	Conduct I/C engine testing on single cylinder diesel engine & find out I.H.P., B.H.P. & mechanical efficiency. i) viva, record submission and checking
15th	1st (3p), Gr-1 & Gr-2	i) Doubt clearing, Remedial and leftout practicals ii) viva on overall practicals
	2nd (3p), Gr-1 & Gr-2	i) Doubt clearing, Remedial and leftout practicals ii) viva on overall practicals

Signature of Faculty