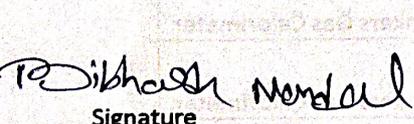


**GOVERNMENT POLYTECHNIC, MALKANGIRI
DEPARTMENT OF MECHANICAL ENGINEERING**

LESSON PLAN

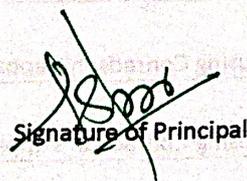
Discipline: Mechanica	Semester: 3RD	Name of the Teaching Faculty: BIBHASH MANDAL
Subject: THERMAL	days/week class	Semester From date:14.07.2025 No. of Week: 15 To date:15.11.2025
Course Outcomes	<p>Determine the flash and fire point of a given sample of fuel using given apparatus (Abels, Cleveland & Penesky martin)</p> <ul style="list-style-type: none"> • Find out the viscosity of a given sample of oil using given apparatus. • Calculate the calorific value of a given sample of fuel using given apparatus. • Determine the amount of carbon residue of a given sample of petroleum product. • Draw VTD /PTD of given I.C. Engine and understand how the processes are controlled during its operation. • Describe the functions of various parts of IC engines and the working of IC engines. 	
Week	Class Day	Theory/Practical Topics
1st	1st	Flash & Fire point tests using Able's/Cleveland/Pensky Martin Apparatus
	2nd	Flash & Fire point tests using Able's/Cleveland/Pensky Martin Apparatus
2nd	1st	Flash & Fire point tests using Able's/Cleveland/Pensky Martin Apparatus
	2nd	Viscosity measurement usi/Saybolt viscometer
3rd	1st	Viscosity measurement usi/Saybolt viscometer
	2nd	Viscosity measurement usi/Saybolt viscometer
4th	1st	Calorific value tests using Bomb Calorimeter (Solid and Liquid fuels) and Junkers Gas Calorimeter
	2nd	Calorific value tests using Bomb Calorimeter (Solid and Liquid fuels) and Junkers Gas Calorimeter
5th	1st	Calorific value tests using Bomb Calorimeter (Solid and Liquid fuels) and Junkers Gas Calorimeter
	2nd	Carbon residue test using Conradson's apparatus.
6th	1st	Carbon residue test using Conradson's apparatus.
	2nd	Carbon residue test using Conradson's apparatus.
7th	1st	Assembling and disassembling of I.C. Engines

	2nd	Assembling and disassembling of I.C. Engines
8th	1st	Assembling and disassembling of I.C. Engines
	2nd	Port timing diagram of Petrol engine
9th	1st	Port timing diagram of Petrol engine
	2nd	Port timing diagram of Petrol engine
10th	1st	Port timing diagram of Diesel engine
	2nd	Port timing diagram of Diesel engine
11th	1st	Port timing diagram of Diesel engine
	2nd	Valve timing diagram of Petrol engine
12th	1st	Valve timing diagram of Petrol engine
	2nd	Valve timing diagram of Petrol engine
13th	1st	Valve timing diagram of Diesel engine
	2nd	Valve timing diagram of Diesel engine
14th	1st	Valve timing diagram of Diesel engine
	2nd	Study of petrol and diesel engine components and Models
15th	1st	Study of petrol and diesel engine components and Models
	2nd	Study of petrol and diesel engine components and Models


Signature
of Faculty


Signature of HOD/


Signature of Academic
Coordinator


Signature of Principal