



TRADE MARK

LIONTM

Teacher's Lesson Note

(2023-24)

HMIF , 5th SEM. (Winter)

(2023-2024)

MECH : I, II

TEACHERS

LESSON NOTE

Date	Week	Class	Subject	Type (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
12/08/22	12	11	PH	Hydraulic Turbine		- Definition and classification of hydraulic turbine	By basic mathematical formulae.
14/08/22	13	11	PH	Impulse Turbine		Definition of Impulse turbine	Formula or Diagrams
16/08/22	14	11	PH			Construction and working principle of Impulse turbine	
19/08/22	15	11	PH			Velocity diagram of moving blades, working done of Francis turbine	Velocity diagram of Francis turbine

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
• Quesh.? • m? • m? • m? • What is Pelton wheel turbine & its work.	- Definition and classification of Hydraulic turbine		19/08/22 S. K. Mohan	19/08/22 S. K. Mohan	
• Diagram • Explain about Pelton wheel turbine.	Construction and working principle of Impulse turbine		19/08/22 S. K. Mohan	19/08/22 S. K. Mohan	
	• Velocity diagram of moving blades, working done of Francis turbine		19/08/22 S. K. Mohan	19/08/22 S. K. Mohan	

TEACHERS

LESSON NOTE

Date	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
21/08/22	1 st		Francis turbine		Derivation of various efficiencies of Francis turbine	Derive formulas
22/08/22	2 nd		Kaplan turbine		Vel. diagram of moving blades, work done of Kaplan turbine.	
23/08/22	3 rd		Kaplan turbine		Simple numericals on Kaplan turbine.	
26/08/22	4 th				Numericals on Impulse turbine.	

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
	Derivation of various efficiencies of Francis turbine		<i>[Signature]</i> 21/08/22	<i>[Signature]</i> 21/08/22	
	Vel. diagram of moving blades. work done of Kaplan turbine		<i>[Signature]</i> 22/08/22	<i>[Signature]</i> 22/08/22	
Simple Problem Solved.	Numerical Problem.		<i>[Signature]</i> 23/08/22	<i>[Signature]</i> 23/08/22	
	Numerical Problem		<i>[Signature]</i> 26/08/22	<i>[Signature]</i> 26/08/22	

TEACHERS

LESSON NOTE

Date	Week	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
24/08/22	1 st	1 st	Maths	Reaction turbine	Definition and diagram of reaction turbine.	Simple numericals on Francis turbine	
29/08/22	2 nd	2 nd	Maths				
05/09/22	3 rd	3 rd	Maths			Difference betn Impulse and reaction turbine	
09/09/22	4 th	4 th	Maths			Class test	

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
	- Reaction turbine. - Numerical solve.		Amritha 24/08/22	SK Hettiar 28/08/22	
	Definition & diagram of reaction turbine.		Amritha 29/08/22	SK Hettiar 29/08/22	
	- Difference betn Impulse & Reaction turbine. - Some previous Numerical solved		Amritha 05/09/22	SK Hettiar 02/09/22	
	- Problem Solve - Class Test		Amritha 09/09/22	SK Hettiar 09/09/22	

TEACHERS

LESSON NOTE

Date	Week	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
11/07/2022	1 st	1 st		Centrifugal Pumps		Definition, Construction of Centrifugal Pumps.	
23/07/2022	2 nd	2 nd				Working Principle of Centrifugal Pumps.	
24/07/2022	3 rd	3 rd		Centrifugal Pumps.		Derivation of Head.	
25/07/2022	4 th	4 th				Derivation of Various Efficiency.	

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
	Definition, Construction of Centrifugal Pumps.		<i>[Signature]</i> 11/07/22	<i>[Signature]</i> 11/07/22	
	Working Principle of Centrifugal Pumps.		<i>[Signature]</i> 23/07/22	<i>[Signature]</i> 23/07/22	
	Derivation of Head.		<i>[Signature]</i> 24/07/22	<i>[Signature]</i> 24/07/22	
	Derivation of Various Efficiency.		<i>[Signature]</i> 25/07/22	<i>[Signature]</i> 25/07/22	

TEACHERS

Date	Week	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
27/09/23	2 nd	10 th				Numerical on Centrifugal Pump.	
30/09/23	3 rd			Reciprocating Pump	Single acting	Basic Concepts of reciprocating Pump.	
07/10/23	4 th					Types of reciprocating Pump.	
9/10/23	5 th					Construction of Single acting reciprocating Pump.	

LESSON NOTE

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
• Sol ⁿ Practice	Numerical on Centrifugal Pump.		<i>[Signature]</i> 27/09/23	<i>[Signature]</i> 28/09/23	27/10/23
	Reciprocating Pump. Basic Concepts of reciprocating Pump.		<i>[Signature]</i> 30/09/23	<i>[Signature]</i> 01/10/23	01/10/23
	Types of reciprocating Pump		<i>[Signature]</i> 06/10/23	<i>[Signature]</i> 06/10/23	18/10/23
	Construction of Single acting reciprocating Pump.		<i>[Signature]</i> 09/10/23	<i>[Signature]</i> 09/10/23	09/10/23

TEACHERS

Date	Week	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
17/10/20	4 th	4 th			Double acting reciprocating Pump.	Describe about double-acting reciprocating Pump.	
17/10/23	4 th	4 th			Power	Derive the formula for power required to drive the single acting reciprocating Pump.	
18/10/23	4 th	4 th			Power	Derive the Power for double acting reciprocating Pump.	
05/11/23	4 th	4 th				Class test.	

LESSON NOTE

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
	Describe about double-acting reciprocating Pump.		<i>[Signature]</i> 17/10/23	<i>[Signature]</i> 17/10/23	
	Derive the formula for power required to drive the single acting reciprocating Pump.		<i>[Signature]</i> 17/10/23	<i>[Signature]</i> 17/10/23	
	Derive the Power for double acting reciprocating Pump.		<i>[Signature]</i> 18/10/23	<i>[Signature]</i> 18/10/23	
	Class test		<i>[Signature]</i> 20/11/23	<i>[Signature]</i> 20/11/23	

TEACHERS

Date	Week	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
15/11/23	1 st	1 st			Slip	Define slip and its types.	
18/11/23	2 nd	2 nd				- State +ve & -ve slip, co-efficient of discharge.	
20/11/23	3 rd	3 rd				- Establish a relation betn slip & coefficient of discharge.	
21/11/23	4 th	4 th			Numericals	Solve simple numericals on above.	

LESSON NOTE

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
	Define slip & its types.		<i>[Signature]</i> 15/11/23	<i>[Signature]</i> 15/11/23	
	State +ve & -ve slip, co-efficient of discharge.		<i>[Signature]</i> 18/11/23	<i>[Signature]</i> 18/11/23	
	Establish a relation betn slip & coefficient of discharge.		<i>[Signature]</i> 20/11/23	<i>[Signature]</i> 20/11/23	
	Solve simple numericals on above.		<i>[Signature]</i> 21/11/23	<i>[Signature]</i> 21/11/23	

TEACHERS

Date	Week	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
22/11/20	8 th	1 st	Pneumatic Central System			- Class test - Definition of Pneumatic System.	
25/11/20	9 th	2 nd				- Discuss about Pneumatic System.	
25/11/20	10 th	3 rd				Elements Filter-regulator	
25/11/20	11 th	4 th				Lubrication unit.	

LESSON NOTE

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
• Class test discussion.	- Class test. - Definition of Pneumatic System.		<i>[Signature]</i>	<i>[Signature]</i>	
	- Discuss about Pneumatic System.		<i>[Signature]</i>	<i>[Signature]</i>	
	Pneumatic System Discuss.		<i>[Signature]</i>	<i>[Signature]</i>	
test could	lubrication unit		<i>[Signature]</i>	<i>[Signature]</i>	

TEACHERS

Date	Week	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
28/11/23	9 th	1 st		Pneumatic Control system	Pressure control Valves	Definition & types of Pressure control Valves	
28/11/23	2 nd					Pressure relief Valves	
29/11/23	3 rd					Pressure regulating Valves	
29/11/23	4 th					Class test	

LESSON NOTE

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9 What is Valves Types of valve	10 Definition & types of Pressure control valves	11	12	13	14
Construction of PRV unit Explain.	Pressure relief Valves		28/11/23	29/11/23	29/11/23
Discuss about parts & function of Construction.	Pressure regulating Valve		28/11/23	29/11/23	29/11/23
	Class test Pneumatic system		28/11/23	29/11/23	29/11/23

TEACHERS

1	2	3	4	5	6	7	8
Date	Week	Class	Subject	Topic (Component)	Sub-Topic (Sub-Component)	Learning Activities to be taken up	TLM to be used
06/11/20	10	10			Direction control valves	Definition and it's types.	
06/11/20	11	11				3/2 DCV details 5/2 DCV and 5/3 DCV with diagram.	
06/11/20	12	12				Flow Control Valves	
07/12/20	13	13				Throttle Valves	

LESSON NOTE

9	10	11	12	13	14
Evaluative Questions	Expected learning outcome	Project work to be assigned	Signatures of the Teacher	Signatures of the Headmaster	Remarks
	Definition of it's types. DCV		<i>[Signature]</i> 06/11/20	<i>[Signature]</i> 06/11/20	
	3/2 DCV details 5/2 DCV & 5/3 DCV with diagram.		<i>[Signature]</i> 06/11/20	<i>[Signature]</i> 06/11/20	
	Flow Control Valves		<i>[Signature]</i> 06/11/20	<i>[Signature]</i> 06/11/20	
	Throttle Valves		<i>[Signature]</i> 07/12/20	<i>[Signature]</i> 07/12/20	

TEACHERS

Date	Week	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
02/11/20	1 st	1 st	Auto				
02/11/20	2 nd	2 nd	Auto				
02/11/20	3 rd	3 rd	Auto				
02/11/20	4 th	4 th	Auto				
02/11/20	5 th	5 th	Auto				
02/11/20	6 th	6 th	Auto				
02/11/20	7 th	7 th	Auto				
02/11/20	8 th	8 th	Auto				
02/11/20	9 th	9 th	Auto				
02/11/20	10 th	10 th	Auto				
02/11/20	11 th	11 th	Auto				
02/11/20	12 th	12 th	Auto				

LESSON NOTE

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
	Various types of ISO Symbols				
	Direct Control of single acting cylinder				
	Operation of double acting cylinder				
	Difference bet ⁿ single & double acting cylinder				

LESSON NOTE

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
1. What is the meaning of the word 'evaluation'? 2. What are the different types of evaluation? 3. What is the difference between formative and summative evaluation? 4. What are the objectives of evaluation? 5. What are the steps in the evaluation process?	1. To assess the learning outcomes of the students. 2. To identify the strengths and weaknesses of the students. 3. To provide feedback to the students and the teachers. 4. To improve the quality of the teaching and learning process. 5. To make decisions about the students' progress and the effectiveness of the curriculum.				
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Date	Week	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used
1	2	3	4	5	6	7	8
	13 th	1 st				Describe & Discuss about Pressure Control Valve.	
	14 th	2 nd			Direction Control Valves	3/2 DCV, 5/2 DCV, 5/3 DCV	
		3 rd				Pressure regulation Valves.	
		4 th				Flow control Valves	

LESSON NOTE

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
	how back to work in 2nd				
	group work 2nd				
	work in 2nd				

TEACHERS

Date	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be Used
1	2	3	4	5	6	7
	1 st				Throttle valves	
	2 nd				External and internal gas pumps	
	3 rd				Wave pump with their diagrams.	
	4 th				Radial Piston Pumps	

LESSON NOTE

Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
9	10	11	12	13	14
What is the function of a throttle valve?					
What is the function of an external gas pump?					
What is the function of an internal gas pump?					
What is the function of a wave pump?					
What is the function of a radial piston pump?					

LESSON NOTE

[illegible]