PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH

LESSON PLAN

Session-2022-2023

Discipline: Metallurgical Engg. Semester: 6th

Name of the Teaching Faculty: Santosh Panda

Subject: FT No. of Days/per week class allotted 5

Semester From Date : 14/2/23 To Date : 23/5/23 No. of Weeks : 12

Week	Class Day	Theory /Practical Topics
1	1	Introduction to casting
	2	Procedure involve in casting.
	3	Adv. & Disadv. of casting.
	4	Pattern Defination.
	5	Pattern Vs Casting
2	1	Pattern Allowance
	2	Storing & Preservation of Pattern.
	3	Moulding Sand
	4	Moulding Sand types.
	5	Properties of Moulding sand
3	1	Backing & Facing Sand
	2	Sand conditioning

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Week	Class Day	Theory /Practical Topics
	3	Sand Reclamation.
	4	Moulding Sand Testing.
	5	Moister content test
4	1	Clay content Test.
	2	Hardness Test.
	3	A/s Grain fineness Test.
	4	Binder's function.
	5	Binders Types
5	1	Additives & its types.
	2	function of special Additives.
	3	Introduction to core.
	4	Steps of core Making

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Week	Class Day	Theory /Practical Topics
	5	Core Baking Methods.
6	1	Core Baking Machine.
	2	Mould Characteristics.
	3	Types of Mould
	4	Moulding Methods
	5	M/c Moulding.
7	1	Details of Machine Moulding.
	2	Bench Moulding
	3	Floor Moulding
	4	Pit Moulding
	5	P.Y. question on this Chapter (Practice)
8	1	Wax Moulding Method.

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Week	Class Day	Theory /Practical Topics
	2	Methods of RaMMing.
	3	Shell Moulding process
	4	Special Moulding Process types.
	5	furnance & its types.
9	1	Coupola furnance.
	2	Induction Furnance.
	3	Induction furnance types.
	4	Electric Arc furnance.
	5	Types of Electric Arc furnance
10	1	Advantage of coupola.
	2	Limitation of coupola.
	3	Question Discussion.

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Week	Class Day	Theory /Practical Topics
	4	Gating system.
	5	Elements of Gating system
11	1	Function of Riser.
	2	Riser types
	3	Directional solidification.
	4	Chills function.
	5	chaplets function.
12	1	casting cleaning
	2	Fettling
	3	Core & its cleaning
	4	Die casting & its types.
	5	Casting Defect & types.

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