

LESSON PLAN - 3RD



GOVERNMENT POLYTECHNIC, KORAPUT DEPARTMENT OF MECHANICAL ENGINEERING

Discipline: MECHANICAL ENGG	Semester: 3RD	Name of the Teaching Faculty: A. SUPHER KUMAR
Subject: PRODUCTION TECHNOLOGY	No. of days/per week class allotted: 4	Semester From date: 01.09.20 To Date: 19.09.2021
No. of Weeks: 15		

COURSE OUTCOMES

CO1: UNDERSTAND THE PRESS TOOL OPERATION (COMPONENTS, PROCESSES)
CO2: UNDERSTAND THE REQUIREMENTS OF FABRICATION SYSTEMS
CO3: UNDERSTAND MANUFACTURING PROCESSES: CASTING, POWDER METALLURGY.

Week	Class Day	Theory/Practical Topics
1 ST	1 ST	EXTRUSION: DEFINITION & CLASSIFICATION.
	2 ND	EXPLAIN: DIRECT, INDIRECT & IMPACT EXTRUSION PROCESSES.
	3 RD	DEFINE ROLLING, & ITS CLASSIFICATION.
	4 TH	DIFFERENCE BETWEEN COLD ROLLING & HOT ROLLING.
2 ND	1 ST	DIFFERENT TYPES OF ROLLING MILLS USED IN ROLLING PROCESS.
	2 ND	
	3 RD	REVISION
	4 TH	QUIZ & ASSIGNMENT - I
3 RD	1 ST	WELDING & VARIOUS WELDING PROCESSES.
	2 ND	EXPLAIN FLUXES USED IN WELDING.
	3 RD	EXPLAIN OXY-ACETYLENE WELDING PROCESS.
	4 TH	EXPLAIN VARIOUS TYPES OF FLAMES USED IN OXY-ACETYLENE WELDING PROCESS.
4 TH	1 ST	EXPLAIN VARIOUS TYPES OF FLAMES USED IN OXY-ACETYLENE WELDING PROCESS. (CONTD...)
	2 ND	EXPLAIN ARC WELDING PROCESS.
	3 RD	EXPLAIN ARC WELDING PROCESS.(CONTD...)
	4 TH	SPECIFY ARC WELDING ELECTRODES.
5 TH	1 ST	RESISTANCE WELDING & ITS CLASSIFICATION.
	2 ND	VARIOUS RESISTANCE WELDING PROCESSES: BUTT WELDING, SPOT WELDING, FLASH WELDING.
	3 RD	PROJECTION WELDING, SEAM WELDING (CONTD...)
	4 TH	EXPLAIN TIG & MIG WELDING PROCESSES.
6 TH	1 ST	EXPLAIN TIG & MIG WELDING PROCESSES. (CONTD...)
	2 ND	DIFFERENT WELDING DEFECTS
	3 RD	CAUSES & REMEDIES. (CONTD...)
	4 TH	QUIZ & ASSIGNMENT - II
7 TH	1 ST	CASTING & VARIOUS CASTING PROCESSES.
	2 ND	CASTING & VARIOUS CASTING PROCESSES. (CONTD...)
	3 RD	EXPLAIN THE PROCEDURE OF SAND MOULD CASTING.
	4 TH	EXPLAIN THE PROCEDURE OF SAND MOULD CASTING. (CONTD...)
8 TH	1 ST	EXPLAIN DIFFERENT TYPES OF MOLDING SANDS WITH THEIR COMPOSITION & PROPERTIES.
	1 ST	CLASSIFY DIFFERENT PATTERN.

	2 ND	STATE DIFFERENT PATTERN ALLOWANCES. (CONTD...)
	3 RD	CLASSIFY CORE.
	4 TH	CONSTRUCTION OF CUPOLA & CRUCIBLE FURNACE.
9 TH	1 ST	WORKING OF CUPOLA & CRUCIBLE FURNACE. (CONTD...)
	2 ND	EXPLAIN DIE CASTING METHOD.
	3 RD	CENTRIFUGAL CASTING SUCH AS TRUE CENTRIFUGAL CASTING.
	4 TH	CENTRIFUGING WITH ADVANTAGES, LIMITATIONS & AREA OF APPLICATION. (CONTD...)
10 TH	1 ST	EXPLAIN VARIOUS CASTING DEFECTS.
	2 ND	IT'S CAUSES & REMEDIES. (CONTD...)
	3 RD	QUIZ & ASSIGNMENT - III
	4 TH	DEFINE POWDER METALLURGY PROCESS.
11 TH	1 ST	ADVANTAGES OF POWDER METALLURGY TECHNOLOGY TECHNIQUE. (PMMT)
	2 ND	METHODS OF PRODUCING COMPONENTS BY PMMT.
	3 RD	EXPLAIN SINTERING.
	4 TH	ECONOMICS OF POWDER METALLURGY.
12 TH	1 ST	REVISION
	2 ND	QUIZ & ASSIGNMENT - IV
	3 RD	PRESS WORKS: BLANKING, PIERCING, AND TRIMMING.
	4 TH	PRESS WORKS: BLANKING, PIERCING, AND TRIMMING. (CONTD...)
13 TH	1 ST	VARIOUS TYPES OF DIE & PUNCH.
	2 ND	VARIOUS TYPES OF DIE & PUNCH. (CONTD...)
	3 RD	SIMPLE, COMPOUND & PROGRESSIVE DIES.
	4 TH	VARIOUS ADVANTAGES & DISADVANTAGES OF ABOVE DIES.
14 TH	1 ST	QUIZ & ASSIGNMENT - V
	2 ND	DEFINE JIGS & FIXTURES.
	3 RD	ADVANTAGES OF USING JIGS & FIXTURES.
	4 TH	STATE THE PRINCIPLE OF LOCATIONS.
15 TH	1 ST	METHODS OF LOCATION W.R.T 3-2-1 POINT LOCATION OF RECTANGULAR JIG.
	2 ND	LIST VARIOUS TYPES OF JIGS & FIXTURES.
	3 RD	REVISION
	4 TH	QUIZ & ASSIGNMENT - VI

LEARNING RESOURCES:

- 01 O.P. KHANNA PRODUCTION TECHNOLOGY, VOL - I& II DHANPAT RAI PUBLICATION
- 02 B.S RAGHUWANSHI WORKSHOP TECHNOLOGY, VOL- I& II DHANPAT RAI & CO
- 03 P.N. RAO MANUFACTURING TECHNOLOGY, VOL I&II TMH
- 04 P.C.SHARMA MANUFACTURING TECHNOLOGY, VOL- I S. CHAND

Sign. Of Faculty
concerned

Shareefa Khatun
Sign. Of HOD I/C

Principal