

SESSION:		WINTER 2023				
BRANCH:		MECHANICAL ENGINEERING				
SEMESTER:		3RD SEC-A				
SUBJECT:		PRODUCTION ENGINEERING (TH-01)				
NAME OF THE FACULTY:			SURANJAN MOHANTY			
SL NO.	MONTH	CHAPT. NO.	DATE	TOPICS TO BE COVERED	NO. OF ACADEMIC DAYS AVAILABLE FOR THE SUBJECT	% COVERED
1	AUGUST	1	4.8.23	1.1 Extrusion: Definition & Classification	16	30%
			5.8.23	1.2 Explain direct, indirect and impact extrusion process		
			8.8.23	1.3 Define rolling. Classify it.		
			9.8.23	1.4 Differentiate between cold rolling and hot rolling process		
			11.8.23	1.5 List the different types of rolling mills used in Rolling process		
			12.8.23	List the different types of rolling mills used in Rolling process		
		2	16.8.23	2.1 Define welding and classify various welding processes		
			18.8.23	Define welding and classify various welding processes		
			19.8.23	2.2 Explain fluxes used in welding		
			21.8.23	Explain fluxes used in welding		
			22.8.23	2.3 Explain Oxy-acetylene welding process.		
			23.8.23	2.4 Explain various types of flames used in Oxy-acetylene welding process.		
			25.8.23	Explain various types of flames used in Oxy-acetylene welding process.		
			26.8.23	2.5 Explain Arc welding process		
28.8.23	2.6 Specify arc welding electrodes					
29.8.23	2.7 Define resistance welding and classify it.					
2	SEPTEMBER	2	1.9.23	Define resistance welding and classify it.	18	32%
			2.9.23	2.8 Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.		
			4.9.23	Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.		
			5.9.23	Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.		
			8.9.23	2.9 Explain TIG and MIG welding process		
			9.9.23	Explain TIG and MIG welding process		

		11.9.23	2.10 State different welding defects with causes and remedies		
	3	12.9.23	3.1 Define Casting and Classify the various Casting processes		
		13.9.23	3.2 Explain the procedure of Sand mould casting		
		15.9.23	3.3 Explain different types of molding sands with their composition and properties		
		16.9.23	3.4 Classify different pattern and state various pattern allowances		
		22.9.23	3.5 Classify core		
		23.9.23	3.6 Describe construction and working of cupola and crucible furnace.		
		25.9.23	Describe construction and working of cupola and crucible furnace.		
		26.9.23	3.7 Explain die casting method.		
		27.9.23	3.8 Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application		
		29.9.23	Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application		
		30.9.23	3.9 Explain various casting defects with their causes and remedies		
3	OCTOBER	4	3.10.23 4.1 Define powder metallurgy process	9	16%
			4.10.23 4.2 State advantages of powder metallurgy technology technique		
			6.10.23 4.3 Describe the methods of producing components by powder metallurgy technique.		
			7.10.23 4.4 Explain sintering		
			9.10.23 4.5 Economics of powder metallurgy.		
		5	10.10.23 5.1 Describe Press Works: blanking, piercing and trimming.		
			11.10.23 5.2 List various types of die and punch		
			13.10.23 5.3 Explain simple, Compound & Progressive dies		
			31.10.23 Explain simple, Compound & Progressive dies		
4	NOVEMBER	5	1.11.23 Explain simple, Compound & Progressive dies	12	22%
			3.11.23 5.4 Describe the various advantages & disadvantages of above dies		
		6	4.11.23 6.1 Define jigs and fixtures		
			6.11.23 6.2 State advantages of using jigs and fixtures		
			7.11.23 6.3 State the principle of locations		
			8.11.23 6.4 Describe the methods of location with respect to 3-2-1 point location of rectangular jig		
			10.11.23 6.4 Describe the methods of location with respect to 3-2-1 point location of rectangular jig		
			13.11.23 6.5 List various types of jig and fixtures		
			14.11.23 List various types of jig and fixtures		
			15.11.23 REVISION		
			17.11.23 REVISION		
			18.11.23 REVISION		

BRIEF SUMMARY OF THE PLAN

SL. NO.	MONTH	UNIT/CHAPTER TO BE COVERED	% COVERAGE
1	AUGUST	CH-1, CH-2	30%
2	SEPTEMBER	CH-2, CH-3	32%
3	OCTOBER	CH-4, CH-5	16%
4	NOVEMBER	CH-5, CH-6	22%

signature of faculty
31.08.23

signature of HOD
31/8/23

signature of principal
31/8/23