

UTKAL INSTITUTE OF ENGINEERING & TECHNOLOGY

DISCIPLINE:	SEMESTER:			
Mechanical Engineering	3rd Sem	NAME OF THE TEACHING FACULTY: Er.Sujit Kumar		
SUBJECT:		Semester From Date:15/09/2022 To Date:22/12/2022		
	No of Days/Per week class allotted: 4 Class P/W(60)			
PRODUCTION TECHNOLOGY		No. Of Weeks: 15		
WEEK	CLASS DAY	THEORY TOPICS	Rl	EMARKS
	1 st	Extrusion: Definition & Classification	Date	Dean/Principal
1 st	2 nd	Explain direct, indirect and impact extrusion process.		
	3 rd	Define rolling. Classify it.		
	4 th	Differentiate between cold rolling and hot rolling process		
$2^{\rm nd}$	1 st	Doubt clear class		
	2 nd	List the different types of rolling mills used in Rolling process		
	3 rd	Define welding and classify various welding processes.		
	4 th	Assignment		
3 rd	1 st	Assignment question Discussion		
	2 nd	Explain fluxes used in welding.		
	3 rd	Explain Oxy-acetylene welding process.		
	4 th	Explain various types of flames used in Oxyacetylene welding process, Explain Arc welding process.		
	1 st	Specify arc welding electrodes		

I		Define resistance welding	
	$2^{\rm nd}$	Define resistance welding	
		and classify it	
, th		Bassilla susiana assistana	
$4^{ m th}$	d	Describe various resistance	
	3 rd	welding processes such as	
		butt welding, spot welding,	
		flash welding, projection	
		welding and seam welding.	
	$4^{ ext{th}}$	Explain TIG and MIG	
	T	welding process	
	1 st	Class Test	
		State different welding	
	2^{nd}	State different welding	
		defects with causes and	
5 th		remedies.	
3	L	Define Casting and Classify	
	3 rd	the various Casting	
		processes	
	$4^{ ext{th}}$	Explain the procedure of	
		Sand mould casting.	
	1 st	Revision of Last Class	
	2 nd	Assignment	
	a rd	Explain different types of	
	3 rd	molding sands with their	
$6^{ m th}$		composition and properties	
	4 th	Classify different pattern	
	·	and state various pattern	
		allowances, Classify core.	
7 th	1	Describe construction and	
	1 st	working of cupola and	
		crucible furnace	
		Describe construction and	
	$2^{ m nd}$	working of cupola and	
		crucible furnace	
	3^{rd}	Doubt clear Class	
	4 th	Assignment	
	4	Assignment	
	<u>,</u>		
	1 st		
		Explain die casting method.	
		Explain centrifugal casting	
	2 nd	such as true centrifugal	
		casting, centrifuging with	
		advantages, limitation and	
8 th		area of application	

Explain centrifugal casting such as true centrifugal 3rd casting, centrifuging with advantages, limitation and area of application **Doubt Clearing Class and** 4^{th} **Assignment Questions** Discussion. Explain various casting 1^{st} defects with their causes and remedies. Define powder metallurgy 2^{nd} process 3rd 9th **Revision Class** 4^{th} Define powder metallurgy process 1^{st} Doubt clear class Internal Question 2^{nd} Discussion State advantages of powder 10^{th} 3^{rd} metallurgy technology technique State advantages of powder 4^{th} metallurgy technology technique 1^{st} **Doubt Clear Class** Describe the methods of producing components by 2^{nd} powder metallurgy 11^{th} technique. 3rd Class Test 4^{th} Explain sintering. 1^{st} Doubt Clear Class 2^{nd} Economics of powder 12^{th} metallurgy. Describe Press Works: 3rd blanking, piercing and trimming

	4 th	List various types of die and punch	
13 th	1 st	Explain simple, Compound & Progressive dies	
	2 nd	Explain simple, Compound & Progressive dies	
	3 rd	Doubt clear class	
	4 th	Class Test	
	1 st	Describe the various advantages & disadvantages of above dies	
14 th	2 nd	Define jigs and fixtures	
	3 rd	State advantages of using jigs and fixtures	
	4 th	State the principle of locations	
15 th	1 st	Describe the methods of location with respect to 3-2-1 point location of rectangular jig	
	2 nd	Describe the methods of location with respect to 3-2-1 point location of rectangular jig	
	3 rd	List various types of jig and fixtures.	
	4 th	Discussion Sample paper question	_

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Chittaraijan Parida

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DD DEAN PRINCIPAL