

Discipline:	Mechanical	Semester: 3rd	Name of the Teaching Faculty: Bhagyashree Panda	
Subject:	Production Technology	No of Days/Week Class Allotted: 4	Semester From date: 15.09.22 To date 21.01.23	No. of Weeks:

WEEK	Class Day	Theory Topics
1st	1st	Definition and objective of Metal forming process
	2nd	Extrusion definition and details
	3rd	Extrusion - classification
	4th	Explain direct, indirect extrusion process
	5th	Explain impact extrusion process
2nd	1st	Explain impact extrusion process
	2nd	Define rolling
	3rd	Classification of rolling
	4th	Cold rolling process
	5th	
3rd	1st	Hot rolling process
	2nd	Differentiate between cold rolling and hot rolling process
	3rd	List different types of rolling mills used in rolling process
	4th	Define welding processes.
	5th	



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WEEK	Class Day	Theory Topics
4th	1st	Classify various welding processes
	2nd	Explain flux used in welding process
	3rd	Explain oxy-acetylene welding process
	4th	Explain various types of flame used in oxy-acetylene welding process
	5th	
5th	1st	Explain arc-welding process
	2nd	Specify arc welding electrodes
	3rd	Define resistance welding
	4th	Classify resistance welding
	5th	
6th	1st	Describe various resistance welding process
	2nd	Describe butt, spot, flash, projection and seam welding process.
	3rd	Explain TIG welding
	4th	Explain MIG welding
	5th	



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WEEK	Class Day	Theory Topics
7th	1st	State different welding defects with its cause and remedies
	2nd	State and classify casting processes
	3rd	Explain the procedure of sand mould casting and different types of moulding sand
	4th	Classify different pattern and state various pattern allowances and core
	5th	
8th	1st	Describe construction and working of cupola and crucible furnace
	2nd	Explain die casting method and centrifugal casting with its advantage, limitation and application
	3rd	Explain various casting defects
	4th	Explain the cause and remedies of casting defects.
	5th	
9th	1st	Define Powder metallurgy process
	2nd	State advantages of powder metallurgy technique
	3rd	Describe the methods of producing components by powder metallurgy technique
	4th	Explain Sintering
	5th	



# Theory Topics

WEEK	Class Day	
10 <sup>th</sup>	1st	Economics of powder metallurgy
	2nd	Describe press work
	3rd	Describe blanking, piercing and trimming
	4th	List various types of die and punch
	5th	
11 <sup>th</sup>	1st	Explain simple dies
	2nd	Explain compound and progressive dies.
	3rd	Describe various advantage of using dies.
	4th	Describe various dis-advantages of above dies
	5th	
12 <sup>th</sup>	1st	Revision test
	2nd	Define jigs with details
	3rd	Define fixtures with details
	4th	State the advantages of using jigs and fixtures
	5th	

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**Theory Topics**

WEEK	Class Day	Topic
13th	1st	State the principle of location
	2nd	Explain the principle of location method using jigs and fixtures.
	3rd	State the principle of location
	4th	Weekly surprise test
	5th	
14th	1st	Describe about types of jig.
	2nd	Describe rectangular jig method
	3rd	Describe 3-2-1 point location method
	4th	Weekly revision and surprise test
	5th	
15th	1st	Describe the method of location with respect to 3-2-1 point location of rectangular jig
	2nd	List various types of jigs
	3rd	List various types of fixtures with details
	4th	Final mock test and full syllabus discussion.
	5th	<u>RP</u> <u>Satisham Acharya</u>