

Discipline :MECHANICAL ENGG	Semester :3 rd	Name of the Teaching Faculty: HIMANSU SEKHAR SETHI
Subject: Producti on Technology	No. of days/per week class allotted: 0 4	Semester From July to December No. of Weeks: 15
Week	Class Day	Theory / Practical Topics
1 ST	1 ST	Extrusion: Definition & Classification
	2 ND	Explain direct, indirect and impact extrusion process.
	3 RD	Define rolling. Classify it.
	4 TH	Define rolling. Classify it.
2 ND	1 ST	Differentiate between cold rolling and hot rolling process
	2 ND	List the different types of rolling mills used in Rolling process
	3 RD	List the different types of rolling mills used in Rolling process
	4 TH	Define welding and classify various welding processes.
3 RD	1 ST	Define welding and classify 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 Arc welding process.
	2 ND	Specify arc welding electrodes.
	3 RD	Define resistance welding and classify it.
	4 TH	Define resistance welding and classify it.
5 TH	1 ST	Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding
	2 ND	Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.
	3 RD	Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.
	4 TH	Explain TIG and MIG welding process
6 TH	1 ST	State different welding defects with causes and remedies
	2 ND	State different welding defects with causes and remedies
	3 RD	State different welding defects with causes and remedies
	4 TH	Define Casting and Classify the various Casting processes.
7 TH	1 ST	Define Casting and Classify the various Casting processes
	2 ND	Define Casting and Classify the various Casting processes
	3 RD	Explain the procedure of Sand mould casting.
	4 TH	Explain different types of molding sands with their composition and properties
8 TH	1 ST	Explain different types of molding sands with their composition and properties
	2 ND	Classify different pattern and state various pattern allowances
	3 RD	Classify different pattern and state various pattern allowances
	4 TH	Classify core.
9 TH	1 ST	Describe construction and working of

		cupola and crucible furnace
	2 ND	Describe construction and working of cupola and crucible furnace.
	3 RD	Explain die casting method.
	4 TH	Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.
10 TH	1 ST	Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.
	2 ND	Explain various casting defects with their causes and remedies
	3 RD	Explain various casting defects with their causes and remedies
	4 TH	Define powder metallurgy process.
11 TH	1 ST	Define powder metallurgy process.
	2 ND	State advantages of powder metallurgy technology technique
	3 RD	Describe the methods of producing components by powder metallurgy technique.
	4 TH	Describe the methods of producing components by powder metallurgy technique
12 TH	1 ST	Explain sintering.
	2 ND	Economics of powder metallurgy
	3 RD	Describe Press Works: blanking, piercing and trimming.
	4 TH	Describe Press Works: blanking, piercing and trimming.
13 TH	1 ST	List various types of die and punch
	2 ND	Explain simple, Compound & Progressive dies
	3 RD	Explain simple, Compound & Progressive dies
	4 TH	Describe the various advantages & disadvantages of above dies
14 TH	1 ST	Describe the various advantages & disadvantages of above dies
	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	List various types of jig and fixtures.

Learning Resources:

01. Production Technology, Vol-I& II by O.P. Khanna, Dhanpat Rai Publication
02. Workshop technology, Vol-I&II by B.S. Raghuvanshi, Dhanpat Rai & Co
03. Manufacturing technology, Vol-I&II by P.N. Rao, TMH
04. Manufacturing technology, Vol-I by P.C. Sharma, S. Chand