## Lesson Plan

Name of the Institute:	C. V. Raman Polytechnic	
Department:	Mechanical Engineering	
Semester/Division/Branch:	3 <sup>rd</sup> Sem/ME	
Subject Name with code:	Production Technology (TH-1)	
Total No. of Class (Required):	60	
Faculty Name:	Mr Chandan Sourav Sahoo	

Class No.	Brief Description of the Topic/Chapter to be taught	Remarks
1	Extrusion: Definition & Classification	
2	Explain direct, indirect and impact extrusion process.	
3	Explain direct, indirect and impact extrusion process.	
4	Define rolling. Classify it.	
5	Differentiate between cold rolling and hot rolling process.	
6	Differentiate between cold rolling and hot rolling process.	
7	List the different types of rolling mills used in Rolling process.	
8	Define welding and classify various welding processes.	
9	Explain fluxes used in welding.	
10	Explain fluxes used in welding.	
11	Explain Oxy-acetylene welding process.	
12	Explain Oxy-acetylene welding process.	
13	Explain various types of flames used in Oxy-acetylene welding process.	
14	Explain various types of flames used in Oxy-acetylene welding process.	
15	Explain Arc welding process.	
16	Specify arc welding electrodes.	
17	Define resistance welding and classify it.	
18	Define resistance welding and classify it.	
19	Describe various resistance welding processes	
20	welding, spot welding, flash welding, projection welding and seam	

	welding.	9
21	welding, spot welding, flash welding, projection welding and seam welding.	
22	Explain TIG and MIG welding process	
23	Explain TIG and MIG welding process	
24	State different welding defects with causes and remedies	
25	State different welding defects with causes and remedies	
26	Define Casting and Classify the various Casting processes.	
27	Define Casting and Classify the various Casting processes.	
28	Explain the procedure of Sand mould casting.	
29	Explain the procedure of Sand mould casting.	
30	Explain different types of molding sands with their composition and properties.	
31	Explain different types of molding sands with their composition and properties.	
32	Classify different pattern and state various pattern allowances.	
33	Classify different pattern and state various pattern allowances.	No.
34	Classify core.	
35	Describe construction and working of cupola and crucible furnace.	
36	Describe construction and working of cupola and crucible furnace.	ı
37	Explain die casting method.	1)
38	Explain die casting method.	1
39	Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.	) 1
40	Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.	A Ry
41	Explain various casting defects with their causes and remedies	
42	Explain various casting defects with their causes and remedies	7
43	Define powder metallurgy process.	
44	State advantages of powder metallurgy technology technique	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
45	Describe the methods of producing components by powder metallurgy technique.	
46	Explain sintering.	
47	Explain sintering.	

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48	Economics of powder metallurgy	
49	Describe Press Works: blanking, piercing and trimming.	
50	List various types of die and punch	
51	List various types of die and punch	
52	Explain simple, Compound & Progressive dies	
53	Explain simple, Compound & Progressive dies	
54	Describe the various advantages & disadvantages of above dies	
55	Define jigs and fixtures, State advantages of using jigs and fixtures	
56	State the principle of locations	
57	Describe the methods of location with respect to 3-2-1 point location of rectangular jig	
58	Describe the methods of location with respect to 3-2-1 point location of rectangular jig	
59	List various types of jig and fixtures	
60	List various types of jig and fixtures	

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