Department: Mechanical Engineering Semester: 3rd **Subject: Production Technology**
No. of periods per week: 4 **Total Periods: 60**
End semester exam: 80 **Class test: 20**
Total Marks: 100

Sl. No.	Week	Period	Topic to be covered
1.	**1st**	**1st**	Extrusion: Definition & Classification
2.		**2nd**	Explain direct, indirect and impact extrusion process.
3.		**3rd**	Define rolling. Classify it.
4.		**4th**	do
5.	**2nd**	**1st**	Differentiate between cold rolling and hot rolling process.
6.		**2nd**	List the different types of rolling mills used in Rolling process.
7.		**3rd**	do
8.		**4th**	Define welding and classify various welding processes.
9.	**3rd**	**1st**	do
10.		**2nd**	do
11.		**3rd**	Explain fluxes used in welding
12.		**4th**	Explain Oxy-acetylene welding process
13.	**4th**	**1st**	Explain various types of flames used in Oxy-acetylene welding process.
14.		**2nd**	do
15.		**3rd**	Explain Arc welding process.
16.		**4th**	Specify arc welding electrodes
17.	**5th**	**1st**	Define resistance welding and classify it.
18.		**2nd**	Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.
19.		**3rd**	do
20.		**4th**	Explain TIG and MIG welding process
21.	**6th**	**1st**	do
22.		**2nd**	do
23.		**3rd**	State different welding defects with causes and remedies.
24.		**4th**	Define Casting and Classify the various Casting processes.
25.	**7th**	**1st**	do
26.		**2nd**	Explain the procedure of Sand mould casting.
27.		**3rd**	Explain different types of molding sands with their composition and properties.
28.		**4th**	do
29.	**8th**	**1st**	Classify different pattern and state various pattern allowances
30.		**2nd**	Do
31.		**3rd**	Classify core
32.		**4th**	Describe construction and working of cupola and crucible furnace.
33.	**9th**	**1st**	do
34.		**2nd**	Explain die casting method
35.		**3rd**	do
36.		**4th**	Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application
37.	**10th**	**1st**	do
38.		**2nd**	do
39.		**3rd**	Explain various casting defects with their causes and remedies
40.		**4th**	Define powder metallurgy process.

41.	**11th**	**1st**	State advantages of powder metallurgy technology technique
42.		**2nd**	Describe the methods of producing components by powder metallurgy technique
43.		**3rd**	do
44.		**4th**	do
45.	**12th**	**1st**	Explain sintering
46.		**2nd**	Economics of powder metallurgy
47.		**3rd**	Describe Press Works: blanking, piercing and trimming.
48.		**4th**	List various types of die and punch
49.	**13th**	**1st**	Explain simple, Compound & Progressive dies
50.		**2nd**	do
51.		**3rd**	Describe the various advantages & disadvantages of above dies
52.		**4th**	Define jigs and fixtures, State advantages of using jigs and fixtures
53.	**14th**	**1st**	State the principle of locations
54.		**2nd**	do
55.		**3rd**	Describe the methods of location with respect to 3-2-1 point location of rectangular jig
56.		**4th**	do
57.	**15th**	**1st**	List various types of jig and fixtures.
58.		**2nd**	do
59.		**3rd**	do
60.		**4th**	do