

Lesson Plan

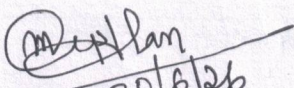
Course - Mechanics of Material Lab(Pr-2)
Semester- 3rd
Program- Civil Engineering
Institute - Govt. Polytechnic, Sonpur
Session - 2026-2027
Total Load-60(4/week)

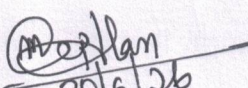
Sl. No.	Week No.	Class No.	Topic to be Covered
1	Week-1	Class-1	Study and understand the use of Universal Testing Machine (UTM) – Components and functions
2	Week-1	Class-2	Study and understand the use of Universal Testing Machine (UTM) – Operating procedure
3	Week-1	Class-3	Study and understand the use of Universal Testing Machine (UTM) – Demonstration of controls
4	Week-1	Class-4	Study and understand the use of Universal Testing Machine (UTM) – Testing procedure
5	Week-2	Class-5	Tension Test on Mild Steel as per IS:432 (Part 1) – Specimen preparation
6	Week-2	Class-6	Tension Test on Mild Steel – Conduct of test
7	Week-2	Class-7	Tension Test on Mild Steel – Calculations and stress-strain observations
8	Week-2	Class-8	Bend-Rebend Test on Mild Steel
9	Week-3	Class-9	Tension Test on Tor Steel as per IS:1608 & IS:1139 – Specimen preparation
10	Week-3	Class-10	Tension Test on Tor Steel – Conduct of test
11	Week-3	Class-11	Tension Test on Tor Steel – Calculations and stress-strain observations
12	Week-3	Class-12	Bend-Rebend Test on Tor Steel
13	Week-4	Class-13	Compression Test on Concrete Cube – Specimen preparation
14	Week-4	Class-14	Compression Test on Concrete Cube – Conduct of test

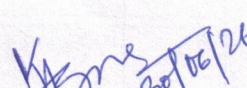
15	Week-4	Class-1 5	Compression Test on Concrete Cube – Calculations
16	Week-4	Class-1 6	Compression Test on Concrete Cube – Result and interpretation
17	Week-5	Class-1 7	Izod Impact Test on Metals – Specimen preparation
18	Week-5	Class-1 8	Izod Impact Test on Mild Steel
19	Week-5	Class-1 9	Izod Impact Test on Brass
20	Week-5	Class-2 0	Izod Impact Test on Aluminium/Copper/Cast Iron
21	Week-6	Class-2 1	Charpy Impact Test on Metals – Specimen preparation
22	Week-6	Class-2 2	Charpy Impact Test on Mild Steel
23	Week-6	Class-2 3	Charpy Impact Test on Brass
24	Week-6	Class-2 4	Charpy Impact Test on Aluminium/Copper/Cast Iron
25	Week-7	Class-2 5	Water Absorption Test on Bricks/Tiles – Specimen preparation
26	Week-7	Class-2 6	Water Absorption Test on Bricks/Tiles – Conduct of test
27	Week-7	Class-2 7	Water Absorption Test – Calculations
28	Week-7	Class-2 8	Water Absorption Test – Result and interpretation
29	Week-8	Class-2 9	Compressive Strength Test of Dry Bricks – Specimen preparation
30	Week-8	Class-3 0	Compressive Strength Test of Dry Bricks – Conduct of test
31	Week-8	Class-3 1	Compressive Strength Test of Dry Bricks – Calculations

32	Week-8	Class-3 2	Compressive Strength Test of Dry Bricks – Result
33	Week-9	Class-3 3	Compressive Strength Test of Wet Bricks – Specimen preparation
34	Week-9	Class-3 4	Compressive Strength Test of Wet Bricks – Conduct of test
35	Week-9	Class-3 5	Compressive Strength Test of Wet Bricks – Calculations
36	Week-9	Class-3 6	Compressive Strength Test of Wet Bricks – Result
37	Week-1 0	Class-3 7	Flexural Test on Concrete Beam – Specimen preparation
38	Week-1 0	Class-3 8	Flexural Test on Concrete Beam – Conduct of test
39	Week-1 0	Class-3 9	Flexural Test on Concrete Beam – Calculations
40	Week-1 0	Class-4 0	Flexural Test on Concrete Beam – Result and interpretation
41	Week-1 1	Class-4 1	Abrasion Test of Floor Tiles – Specimen preparation
42	Week-1 1	Class-4 2	Abrasion Test of Floor Tiles – Conduct of test
43	Week-1 1	Class-4 3	Abrasion Test of Floor Tiles – Calculations
44	Week-1 1	Class-4 4	Abrasion Test of Floor Tiles – Result and interpretation
45	Week-1 2	Class-4 5	Flexural Test of Floor Tiles – Specimen preparation
46	Week-1 2	Class-4 6	Flexural Test of Floor Tiles – Conduct of test
47	Week-1 2	Class-4 7	Flexural Test of Floor Tiles – Calculations
48	Week-1 2	Class-4 8	Flexural Test of Floor Tiles – Result

49	Week-1 3	Class-4 9	Flexural Test of Roof Tiles – Specimen preparation
50	Week-1 3	Class-5 0	Flexural Test of Roof Tiles – Conduct of test
51	Week-1 3	Class-5 1	Flexural Test of Roof Tiles – Calculations
52	Week-1 3	Class-5 2	Flexural Test of Roof Tiles – Result
53	Week-1 4	Class-5 3	Tension Test on Mild Steel – Repeat test and observations
54	Week-1 4	Class-5 4	Compression Test on Concrete Cube – Repeat test and observations
55	Week-1 4	Class-5 5	Izod Impact Test – Comparative observations on tested metals
56	Week-1 4	Class-5 6	Charpy Impact Test – Comparative observations on tested metals
57	Week-1 5	Class-5 7	Flexural Test on Concrete Beam – Observation and analysis
58	Week-1 5	Class-5 8	Abrasion Test of Floor Tiles – Observation and analysis
59	Week-1 5	Class-5 9	Flexural Test of Floor Tiles/Roof Tiles – Comparative observations
60	Week-1 5	Class-6 0	Compressive Strength of Bricks (Dry & Wet) – Comparative analysis of results


 30/6/26
 Signature of Faculty
 Civil Engg, GP Sonpur


 30/6/26
 Signature of HOD
 Civil Engg, GP Sonpur


 30/6/26
 Academic Co-ordinator
 Civil Engg, GP Sonpur