

LESSON PLAN

Department: CIVIL

NAME OF THE FACULTY: Malla. Balkrishna

CLASS: 1-B Tech

BRANCH: Civil A

SUBJECT: Engineering Chemistry

Year: 2015-16

SEM: 2nd Sem

Period	Date (Tentative)	Topic	Unit	Teaching Methodology	Remarks	Corrective action upon Review
1	28/12/2015	Polymerization reactions, Basic concepts	1	CR		
2	28/12/2015	Types of polymerization, addition and condensation polymerizations	1	CR		
3	29/12/2015	Plastics: Thermosetting and Thermoplastics – differences	1	CR		
4	04/01/2016	Compounding of Plastics	1	CR		
5	04/01/2016	Moulding of plastics 1) Compression, 2) injection moulding	1	CR		
6	08/01/2016	Moulding of plastics 1) transfer and 2) extrusion moulding	1	CR		
7	08/01/2016	Preparation of PE, PVC, Teflon, Bakelite, Nylon, Polyesters				
8	11/01/2016	Properties of PE, PVC, Teflon, Bakelite, Nylon, Polyesters	1	CR		
9	11/01/2016	Uses of PE, PVC, Teflon, Bakelite, Nylon, Polyesters	1	CR		
10	17/01/2016	Classification of Cement, raw materials of Portland cement	1	CR		
11	17/01/2016	Manufacture of Portland cement	1	CR		
12	21/01/2016	Chemical constitution of Portland cement	1	CR		
13	21/01/2016	Setting and Hardening of Portland Cement	1	CR	1 st Unit Will Be Completed	
14	25/01/2016	Introduction to Water technology: Hardness of Water	2	CR		

15	26/01/2016	Temporary and Permanent hardness	2	CR		
16	29/01/2016	Units and inter conversions of Units	2	CR		
17	01/02/2016	Estimation of hardness by EDTA Method	2	CR		
18	02/02/2016	Problems on Temporary and Permanent hardness	2	CR		
19	05/02/2016	Problems on Temporary and Permanent hardness	2	CR		
20	08/02/2016	Problems on Temporary and Permanent hardness, Disadvantages of Hard Water	2	CR		
21	09/02/2016	Methods of Treatment of Water for Domestic Purposes: Sedimentation, Coagulation, Filtration	2	CR		
		1 st Mid Examinations				
		1 st Mid Examinations				
		1 st Mid Examinations				
		1 st Mid Examinations				
22	15/02/2016	Methods of Treatment of Water for Domestic Purposes: Disinfection - Sterilization, Chlorination, Break Point chlorination, Ozonisation	2	CR		
23	15/02/2016	Industrial Water Treatment – Desalination, Reverse Osmosis Treatment	2	CR		
24	16/02/2016	Industrial Water Treatment – Lime-Soda Process (Hot Lime Soda and Cold Lime Soda Process)	2	CR		
25	16/02/2016	Industrial Water Treatment - Zeolite Process,	2	CR		
26	19/02/2016	Industrial Water Treatment – Ion-Exchange Process	2	CR	2 nd Unit Will Be Completed	
27	22/02/2016	Definition, examples of Corrosion	3	CR		
28	22/02/2016	Types of corrosion: Dry Corrosion and Wet Corrosion	3	CR		

29	29/02/2016	Principles of corrosion:	3	CR		
30	29/02/2016	Galvanic series, Galvanic corrosion, Concentration cell corrosion	3	CR		
31	01/03/2016	Mechanism of Wet Corrosion: Hydrogen evolution Type	3	CR		
32	04/03/2016	Mechanism of Wet Corrosion: Oxygen Absorption Type	3	CR		
33	07/03/2016	Factors influencing the rate of corrosion	3	CR		
34	08/03/2016	Factors influencing the rate of corrosion	3	CR		
35	11/03/2016	Control of corrosion - proper design, use of pure metal and metal alloys, Passivity	3	CR		
36	14/03/2016	Control of corrosion - Cathodic Protection – Sacrificial anode and impressed current	3	CR		
37	15/03/2016	Control of corrosion - Modifying the environment	3	CR		
38	15/03/2016	Control of corrosion - Use of inhibitors.	3	CR	3 rd Unit Will be completed	
		2 nd Mid Examinations				
		2 nd Mid Examinations				
		2 nd Mid Examinations				
		2 nd Mid Examinations				
39	21/03/2016	Introduction to Liquid Fuels	4	CR		
40	21/03/2016	Classification of Crude Oil	4	CR		
41	22/03/2016	Fractional Distillation	4	CR		
42	25/03/2016	Cracking (Thermal &Catalytic)	4	CR		
43	28/03/2016	Manufacturing of Synthetic Petrol: Fischer-Tropschs Process.	4	CR		
44	28/03/2016	Manufacturing of Synthetic Petrol: Bergius Process	4	CR		
45	29/03/2016	Polymerization	4	CR		
46	29/03/2016	Refining &Reforming	4	CR		
47	01/04/2016	Knocking –Anti Knocking Agents	4	CR		

48	01/04/2016	Octane & Cetane Number	4	CR		
49	04/04/2016	Lubricants: Principle and functions of lubricants, Types of lubricants.	4	CR		
50	04/04/2016	Mechanism of Lubrication: Thick film or Hydrodynamic lubrication, thin film lubrication	4	CR		
51	05/04/2016	Extreme pressure lubrication:	4	CR		
52	05/04/2016	Classification of Lubricants	4	CR		
53	05/04/2016	Properties of lubricants – Viscosity, flash and fire points.	4	CR		
54	08/04/2016	Properties of lubricants – cloud and pour points, aniline points	4	CR		
55	08/04/2016	Properties of lubricants – neutralization number and mechanical strength	4	CR	4 th Unit Will Be completed	
56	11/04/2016	Solar Energy - Introduction – harnessing solar energy.	5	CR		
57	11/04/2016	Photo voltaic cells (Construction & Working of PV Cells)	5	CR		
58	12/04/2016	Concentrated Solar Power Plants	5	CR		
59	15/04/2016	Green house concept.	5	CR		
60	18/04/2016	Introduction to Green Chemistry. Principles of Green Chemistry: 1 to 4 principles of Green chemistry	5	CR		
61	18/04/2016	5 to 8 principles of Green chemistry	5	CR		
62	19/04/2016	9 to 12 principles of Green chemistry	5	CR		
63	22/04/2016	Green synthesis: Engineering Applications in Green Chemistry	5	CR		
64	22/04/2016	Introduction to Nano materials: preparation of few Nano materials: Carbon Nano Tubes	5	CR		

65	25/04/2016	preparation of few Nano materials: Carbon Nano Tubes, Fullerenes etc.,	5	CR		
66	25/04/2016	Top down and Bottom up concepts: Properties of Nano materials- Silver and Gold Nano particles	5	CR		
67	26/04/2016	Engineering & Biomedical applications in Nanotechnology	5	CR	5 th Unit will Be completed	
		3 rd Mid Examinations				
		3 rd Mid Examinations				
		3 rd Mid Examinations				
		3 rd Mid Examinations				