

SRM UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF CHEMICAL ENGINEERING
COURSE PLAN

Course Code : CH0203
Semester: III

Course Title: Inorganic Chemical Technology
Course Period : June – December

Required Text Books:

- George T. Austin, *Shreve's Chemical Process Industries*, 5th Edn., McGraw-Hill International Editions, Singapore, 1984
- Gopala Rao M. and Marshall Sittig, *Dryden's Outlines of Chemical Technology*, 3rd Edn., East-West Press, New Delhi, 1997

REFERENCE BOOK

- Chemical vol. I, II, III, & IV, *Chemical Engineering Education Development Centre*, IIT Madras, 1975-78

Detailed Session plan:

INTRODUCTION					
Indian inorganic chemical industry - An overview, Chlor Alkali Industries : Manufacture of Sodium Chloride, Soda Ash, Sodium bi-carbonate, Chlorine and Caustic Soda.					
Sessi on No.	Topics to be covered	Time (min)	Ref	Teaching method	Testing method
1	Indian inorganic chemical industry - An overview	50	1,2	BB	Discussion
2	Indian inorganic chemical industry - An overview	50	2	BB	Discussion
3	Chlor Alkali Industries	50	2	BB	Discussion
4	Chlor Alkali Industries	50	2	BB	Discussion
5	Manufacture of Sodium Chloride	50	2	BB	Discussion
6	Manufacture of Soda Ash,	50	2	BB	Discussion
7	Manufacture of Sodium bi-carbonate	50	2	BB	Discussion
8	Manufacture of Chlorine	50	2	BB	Discussion
9	Manufacture of Caustic Soda.	50	2	BB	Discussion
SULPHUR INDUSTRIES					
Mining of sulphur and different sources of sulphur, manufacture of sulphuric acid manufacture of hydrochloric acid by synthetic method, Alum, Ferrous Sulphate, Copper Sulphate Magnesium Sulphate, Sodium Sulphate, Sodium Hydro Sulphite, Sodium thiosulphate.					
10	Mining of sulphur and different sources of sulphur	50	1,2	BB	Discussion
11	manufacture of sulphuric acid	50	2	BB	Discussion
12	manufacture of hydrochloric acid by synthetic method	50	2	BB	Discussion
13	Alum	50	2	BB	Discussion
14	Ferrous Sulphate	50	2	BB	Discussion,
15	Copper Sulphate	50	2	BB	Discussion
16	Magnesium Sulphate	50	2	BB	Discussion
17	Sodium Sulphate,	50	2	BB	Discussion,

18	Sodium Hydro Sulphite, Sodium thiosulphate.	50	2	BB	Objective type test,
SILICATE INDUSTRIES					
Ceramics, Glass and Cement, Paint, Varnish, Enamel and Lacquer, White Lead, Zinc Oxide, Lithopone: Titanium di oxide.					
19	Ceramics	50	1,2	BB	Discussion
20	Glass	50	1,2	BB	Discussion
21	Cement	50	1,2	BB	Discussion,
22	Paint,	50	1,2	BB	Discussion
23	Varnish	50	1,2	BB	Discussion
24	Enamel and Lacquer	50	1,2	BB	Discussion
25	White Lead	50	1,2	BB	Discussion
26	Zinc Oxide	50	1,2	BB	Discussion
27	Lithopone,Titanium di oxide.	50	1,2	BB	Discussion
FERTILIZER INDUSTRIES					
Nitrogen Industries : Synthetic Ammonia, Nitric Acid, Urea, Diammonium Phosphate, Nitrogen Fertilizers. Phosphorous industries : Phosphate rock, manufacturer of phosphorous, Phosphoric Acid, Super phosphate and Triple super phosphate. Potassium industries: Potassium chloride and potassium sulphate.					
28	Synthetic Ammonia	50	1,2	BB	Discussion
29	Nitric Acid,	50	1,2	BB	Discussion
30	Urea	50	1,2	BB	Discussion
31	Diammonium Phosphate	50	1,2	BB	Discussion
32	Nitrogen Fertilizers	50	1,2	BB	Discussion
33	Phosphate rock, manufacturer of phosphorous	50	1,2	BB	Discussion
34	Phosphoric Acid	50	1,2,	BB	Discussion
35	Super phosphate and Triple super phosphate.	50	1,2,	BB	Discussion.
36	Potassium chloride and potassium sulphate	50	1,2,	BB	Discussion
MISCELLANEOUS					
Bromine and Bromides, Fluorine and Flurochemicals, Aluminium Aluminium Sulphate. Sodium Cyanide, Sodium Silicate, Sodium Peroxide, Hydrogen Peroxide, Calcium Carbide.					
38	Bromine and Bromides	50	1,	BB	Discussion
39	Fluorine and Flurochemicals	50	1	BB	Discussion
40	Aluminium Aluminium Sulphate	50	1	BB	Discussion
41	Sodium Cyanide	50	1	BB	Discussion
42	Sodium Silicate,	50	1	BB	Discussion
44	Hydrogen Peroxide	50	1	BB	Discussion
45	Calcium Carbide.	50	1	BB	Discussion