

BS (4 Years) for Affiliated Colleges



Code	Subject Title	Cr. Hrs	Semester
CHEM-435	Applied Chemistry (Sp. Theory-II)	4	VIII
Year	Discipline		
4	Chemistry		

SYLLABUS OUTLINE:

1. **Coal Chemicals fuel Gases:**

The destructive distillation of coal, coking of coal distillation of coal tar; Liquid Fuels: Hydrogenolysis Natural gas; Coal Gas: Water Gas; Liquefied Petroleum Gases.

2. **Sugar Industry and Related Chemicals:**

Extraction of juice from sugar cane, purification of juice, clarification, concentration, refining and crystallization. Beet sugar. Glucose and hydrogenated glucose syrups.

3. **Polymers:**

General classification of polymers, characteristics and significance of polymers, various mechanisms of polymerization process, Polymer processing like extrusion, injection, modeling and blow molding of plastics.

Brief description and uses of the following polymers:

Polyethylene, polystyrene, epoxy resins, polyethylene tetraphthalate.

RECOMMENDED BOOKS:

1. Shereve's Chemical Process Industries, 5th Ed.1975, G.T.Austin, McGraw Hill Book Co. New York.
2. An Introduction to Polymer Chemistry, W.R.Moor, London Press, London.
3. Principles of Polymer Systems, Rodri-Guez, McGraw Hill Book Co. New York.
4. Modern Technology of Plastics and Polymer Processing Industries, NIIR Board
5. Sugar: Science and Technology, G. G. Birch and K.. J. Parker, Applied Science Publishers Ltd., 1979.
6. Principles of Sugar Technology, Pieter Honig Vol I, Elsevier Publishing Company, 1953.