

BS (4 Years) for Affiliated Colleges



Code	Subject Title	Cr. Hrs	Semester
CHEM-434	Applied Chemistry (Sp. Theory-I)	4	VIII
Year	Discipline		
4	Chemistry		

SYLLABUS OUTLINE:

1. Leather Tanning Industries:

Introduction, important steps in leather manufacturing, theory of leather tanning, waste disposal and pollution aspects involved in tanning industries.

2. (a) Oils and Fats:

Classification of oils and fats, vegetable oils, essential oils, various methods of extraction of oils, refining and hydrogenation of oils, Industrial applications of oils in resins, surfactants, lubricants and paints.

(b) Petrochemicals:

Chemistry and importance of the following petrochemicals: Acetylene; ethylene; propylene, benzene, toluene, xylene and naphthalene. Oxidation halogenation and nitration of petrochemicals of industrial significance.

3. Textile Fibers:

Classification of synthetic fibers, chemistry and manufacturing of viscose rayon, true synthetic fibers including nylons and polyester fibers. Finishing processes for 100% cotton fabrics such as singeing, desizing, scouring, mercerizing and bleaching.

RECOMMENDED BOOKS:

1. Food Oils and Fats, H.Lawson, CBS Publishers and Distributors, New Delhi.(1997).
2. Industrial chemistry, B. K. Sharma, Krishna Prakashan Media (P) Ltd., Ed-15 (2006).
3. Leather in life art and industry, John W. Waterer, 1927. Faber and Faber Ltd.
4. Fibre to fabric, 4th Ed, Potter & Corban, McGraw Hill book Company, 1959.
5. A Text on Petrochemicals, Bhaskararsao, 2002.