## 2.17 30817 ANALYTICAL CHEMISTRY OF LEATHER MANUFACTURE

- 1. Principle and methods (in brief) employed for the analysis of water, curing and pretanning chemicals including spent liquors,
- 2. Vegetable tanning materials and extracts, chrome liquors and extracts, aluminium and zirconium tanning salts,
- 3. PH measurements indicators and their uses in testing.
- 4. Vegetable, mineral and combination tanned leathers for characteristics like degree of tannage, mineral oxide contents etc.
- 5. Physical testing of various types of leathers for tensile strength, elongation, dynamic water absorption, abrasion resistance rub fastness, shrinkage etc.
- 6. Use of instruments such as spectrophotometer, colorimeter, ion exchange resins etc. in testing of tanning chemicals.
- 7. Conservation of chemicals and water in the tannery.
- 8. Different practice and quality control of different methods of pre-tanning process as applied to light and heavy leather process control in pretanning and post tanning operation.

## **Reference books:**

- 1. Unit Operations, McCabe & Smith, McGraw Hill in Chemical Engineering.
- 2. Chemical Engineering, Coulson & Richardson, Pergamon Press.

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