

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-V • EXAMINATION – WINTER • 2014

Subject Code: 152805**Date: 08-12-2014****Subject Name: Production and Application of Colorants and Auxiliaries****Time: 10.30 am - 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Describe Dow and Cumene process in detail with chemical reactions. **10**
(b) What are Intermediates? Give examples of different Intermediates. **04**
- Q.2** (a) Describe oxidation with examples. **07**
(b) What is reduction? Describe Bachamp reduction in detail. **07**
- OR**
- (b) Discuss coal tar distillation with neat sketch. **07**
- Q.3** (a) Describe halogenation in detail with examples. **07**
(b) Describe Nitration in detail with examples. **07**
- OR**
- Q.3** (a) Discuss the concept of wetting, emulsification and detergency with examples of textile processes. **07**
(b) Explain Sulphonation with suitable examples. **07**
- Q.4** Discuss the chemistry, preparation, properties and applications of anionic surface active agents. **14**
- OR**
- Q.4** Discuss the chemistry, preparation, properties and applications of cationic surface active agents. **14**
- Q.5** Write a short note on any TWO: **14**
(a) Sequestering agents
(b) Leveling Agents
(c) Wetting agents
(d) Discharging agents in printing
