

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-V • EXAMINATION – WINTER 2013

Subject Code: 152805**Date: 09-12-2013****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.

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|------------|---|-----------|
| Q.1 | (a) Give detail classification of dyes according to its application. | 10 |
| | (b) What are Intermediates? Give examples of different Intermediates. | 04 |
| Q.2 | (a) Describe Dow and Cumene process in detail with chemical reactions. | 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 Chlorination in detail with examples. | 07 |
| | (b) Describe Sulphonation 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 nitration with suitable examples. | 07 |
| Q.4 | Discuss the chemistry, preparation, properties and applications of cationic surface active agents. | 14 |
| | OR | |
| Q.4 | Discuss the chemistry, preparation, properties and applications of nonionic surface active agents. | 14 |
| Q.5 | Write a short note on any TWO: | 14 |
| | (a) Sequestering Agents | |
| | (b) Leveling Agents | |
| | (c) Buffers | |
| | (d) Discharging agents in printing | |
