

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – SUMMER • 2014****Subject Code: 152801****Date: 11-06-2014****Subject Name: Chemistry of Intermediates and Dyes****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) Discuss in detail coal tar distillation with necessary sketch. **07**
(b) With practical significance explain the process of nomenclature of dyes. **07**
- Q.2** (a) Describe the synthesis of Sulphanilic acid and H acid. **07**
(b) Discuss the Friedel-Craft's reaction with chemical reactions involved. **07**
- OR**
- (b) Explain Halogenation with suitable examples. **07**
- Q.3** (a) Discuss nitration with chemical reactions involved and its significance in synthesis of dyestuffs. **07**
(b) Explain sulphonation and desulphonation processes with suitable examples. **07**
- OR**
- Q.3** Give the detailed classification of dyes based on their application methods. **14**
- Q.4** Describe the synthesis of Disperse dyes, reactive dyes and azoic colors with their properties. **14**
- OR**
- Q.4** Discuss Molecular orbital theory and valence bond theory in detail. **14**
- Q.5** Explain oxidation and reduction reactions with suitable examples. **14**
- OR**
- Q.5** (a) Give synthesis of Amino G-acid and Amino J- acid. **07**
(b) Explain Hypsochromic and Bathochromic shift with suitable examples and plots. **07**
