

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – WINTER • 2014****Subject Code: 143604****Date: 31-12-2014****Subject Name: Chemistry of Intermediates and Colorants - II****Time: 02:30 pm - 05:00 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) Give the synthesis of copper phthalocyanine dyes. Give example of reactive dye of copper phthalocyanine derivatives. **07**
- (b) Explain mordent theory of colour and chemical constituents. **07**
- Q.2** (a) Give the synthesis of Acid Red 14 and Acid Red 29. **07**
- (b) Explain molecular orbital theory of colour constituents of organic compounds. **07**
- OR**
- (b) Explain law of coupling with suitable examples. **07**
- Q.3** (a) Define the term diazotization? Discuss different methods of diazotization. **07**
- (b) Explain different types of process for the synthesis of indigoid dyes. **07**
- OR**
- Q.3** (a) Define the term hot and cold brand reactive dye? Give the synthesis of Procion Brilliant Blue MR and Remazol Brilliant Blue R. **07**
- (b) Define the term disperse dye. Give the synthesis of Disperse Red I and Disperse Orange 13. **07**
- Q.4** (a) Give the classification of dyes based on chromophores. **07**
- (b) Give the synthesis of Naphthol AS and Fast Orange GGD base. **07**
- OR**
- Q.4** (a) Give the synthesis of Malachite Green and Rose Aniline. **07**
- (b) Give the synthesis of Auramine O and Auramine G. **07**
- Q.5** (a) Explain Jablonksi diagram. **07**
- (b) Give the synthesis of Acid Red 148 and Congo Red with explanation. **07**
- Q.5** (a) Define the term optical brightens. Give the characteristic properties and classification of optical brightens. **07**
- (b) Give the synthesis of Caledone Jade Green with explanation. **07**
