

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – SUMMER • 2014****Subject Code: 163604****Date: 26-05-2014****Subject Name: Technology of Pigments****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) Explain the synthesis and properties of any two anthraquinone pigments. **07**
(b) Give the synthesis of copper phthalocyanine from phthalic anhydride and describe the different kinds of polymorphs of CPC. **07**
- Q.2** (a) Write a short note on benzanthrone pigments. **07**
(b) Explain the difference between dyes and pigments. Give the classification of pigments. **07**
- OR**
- (b) Write note on Pigment dispersion. **07**
- Q.3** (a) Write a brief account of isoindoline pigments **07**
(b) Give the synthesis of condensation Pigment Yellow 93 and Pigment Red 144. **07**
- OR**
- Q.3** (a) Give the structure of Pigment Violet 19 and mention which kind of pigment it is? **07**
(b) Write short note on aryl amide pigments with suitable examples. **07**
- Q.4** (a) Write the general structure of benzimidazolone red, brown & violet pigments. **07**
Give the structure of Pigment Violet 32.
(b) Explain dioxazine pigments with examples. **07**
- OR**
- Q.4** (a) Give the synthesis of any one Quinacridone pigment **07**
(b) Give the synthesis of Lake Pigment Red 63 and Lake Pigment Yellow 61. **07**
- Q.5** (a) Write down synthesis of pigment orange 13 and mention which type of pigment it is? **07**
(b) Write down the following test methods of pigments **07**
1. Oil absorption
2. Solvent stability
3. Particle size
4. Bulking volume
5. Water soluble matter
- OR**
- Q.5** (a) Draw the different types of pyrazolone pigments. **07**
(b) Write general structure of benzimidazolone yellow pigments & give the structure of Pigment Yellow 154. **07**
