| Seat No.: | Enrolment No. |
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI • EXAMINATION - SUMMER • 2015

| Subject Code: 163604 Date: 12/05/2 | |)15 | |
|------------------------------------|----------------|--|----------|
| Sul | bject [| Name: Technology of Pigments | |
| Time:10.30am-01.00pm Total Marks: | | | |
| Inst | ruction | ns: | |
| | 1. 2. 3. | Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. | |
| Q.1 | (a) | Write general structure of benzimadazole pigments & give the structure of Pigment Orange 36. | 07 |
| | (b) | Define the term dyes and pigments. Give the classification of pigments. | 07 |
| Q.2 | (a) (b) | Write note on Pigment dispersion. Write down the following test methods of pigments. 1. Solvent stability 2. Bulking volume 3. Water soluble matter | 07 07 |
| | . <u>.</u> . | OR | |
| | (b) | Write down the synthesis of benzanthrone pigment from glycerol. | 07 |
| Q.3 | (a) (b) | Give the synthesis of Lake Pigment Red 57:1 and Lake Pigment Yellow 100. Give the synthesis of Tripheno Dioxazine pigments. OR | 07 07 |
| Q.3 | (a) (b) | Give the synthesis of any two benzimadazole pigments. Explain the synthesis of Pigment Yellow 14 and Pigment Yellow 55. | 07 07 |
| Q.4 | (a) | Give the structure of Pigment Red 122 and mention which kind of pigment it is?. | 07 |
| | (b) | Give the synthesis of condensation Pigment Red 144 and Pigment Brown 23. OR | 07 |
| Q.4 | (a) | Give the synthesis of copper phthalocyanine from phthalic anhydride and describe the different kinds of polymorphs of CPC. | 07 |
| | (b) | Write a brief account of isoindoline pigments. | 07 |
| Q.5 | (a) | Write down synthesis of Pigment Yellow 12 and mention which type of pigment it is? | 07 |
| | (b) | Explain the synthesis and properties of any two anthraquinone pigments. OR | 07 |
| Q.5 | (a) (b) | Give the synthesis of any one monoazo and bisazo pyrazolone pigments. Give the synthesis of any one Quinacridone pigment | 07 07 |
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