Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER-VI • EXAMINATION – SUMMER • 2014

Sul	bject	Code: 163604 Date: 26-05-2014	
	-	Name: Technology of Pigments	
	ne: 10 ructio	0:30 am - 01:00 pm Total Marks: 70	
IIISt	1.	Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.	
Q.1	(a) (b)	Explain the synthesis and properties of any two anthraquinone pigments. Give the synthesis of copper phthalocyanine from phthalic anhydride and describe the different kinds of polymorphs of CPC.	07 07
Q.2	(a) (b)	Write a short note on benzanthrone pigments.  Explain the difference between dyes and pigments. Give the classification of pigments.	07 07
		OR	
	<b>(b)</b>	Write note on Pigment dispersion.	07
Q.3	(a) (b)	Write a brief account of isoindoline pigments Give the synthesis of condensation Pigment Yellow 93 and Pigment Red 144.  OR	
Q.3	(a)	Give the structure of Pigment Violet 19 and mention which kind of pigment it is?	07
	<b>(b)</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. Give the structure of Pigment Violet 32.	07
	<b>(b)</b>	Explain dioxazine pigments with examples.  OR	07
Q.4	(a) (b)	Give the synthesis of any one Quinacridone pigment Give the synthesis of Lake Pigment Red 63 and Lake Pigment Yellow 61.	07 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  1. Oil absorption  2. Solvent stability  3. Particle size  4. Bulking volume  5. Water soluble matter	07
Q.5	(a) (b)	Draw the different types of pyrazolone pigments.  Write general structure of benzimidazolone yellow pigments & give the structure of Pigment Yellow 154.	07 07

\*\*\*\*\*