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Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV • EXAMINATION - SUMMER • 2014

Subject Code: 143604 Date: 23-06-2014 Subject Name: Chemistry of Intermediates and Colorants - II			
Tir	•	0:30 am - 01:00 pm Total Marks: 70	
	1.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Explain modern theory of color and chemical constituents. Define the term optical brighteners. Give the characteristic properties and classification of optical brighteners.	07 07
Q.2	(a) (b)	Explain molecular orbital theory. Give the synthesis of Direct Orange 26 and Direct Red 31. OR	07 07
(b)	(b)	Give the classification of dyes based on chromophores.	07
Q.3	(a)	Define the term monoazo dyes and give the synthesis of Acid Red 14 and Acid Red 29.	07
	(b)	Define the term reactive dye? Give the classification of reactive dye. Give the synthesis of Procion Brilliant Red H-3B. OR	07
Q.3	(a)	Define the term azoic dyes. Give the synthesis of naphthol AS and Fast Orange GGD base.	07
	(b)	Give the synthesis of Tinopal BV and 3-phenyl coumarin.	07
Q.4	(a) (b)	Give the synthesis of Rosaniline and Auramine G. Define the term disperse dye. Give the classification of disperse dyes. Give the synthesis of Disperse Yellow 23. OR	07 07
Q.4	(a)	Explain diazotization and coupling reaction with mechanism.	07
V. -1	(b)	Give the example of anthraquinone and nitrodipheylamine disperse dyes.	07
Q.5	(a) (b)	Explain different types of process for the synthesis of indigoid dyes. Give the synthesis of Malachite Green and Crystal Violet. OR	07 07
Q.5	(a) (b)	Explain various methods for the synthesis of Indanthrone Blue. Give the synthesis of copper phthalocyanine from phthalonitrile and phthalic anhydride.	07 07
