Seat No.: _____ Enrolment No._____

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**

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