Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-III • EXAMINATION - WINTER 2013** 

Subject Code: 133604 Date: 26-11-2013			
Tir		Name: Chemistry of Intermediates and Colorants - I 2.30 pm - 05.00 pm Total Marks: 70	
11130	1. 2.	Attempt all questions.	
Q.1	(a) (b)	Write a note on synthesis of naphthol sulphonic acid. Give the classification of dyes based on chromophores.	07 07
Q.2	(a)	Give the synthesis of following compounds from diethyl malonate  a. Barbituric acid  b. Acetoacetic acid  c. 2-methyl propanoic acid  d. Glycine  e. Propionic acid	07
	<b>(b)</b>	Write a note on synthesis of typical dyestuff intermediates based on toluene. <b>OR</b>	07
	(b)	<ul> <li>How will you synthesize following compounds from naphthalene?</li> <li>a. α-naphthol</li> <li>b. β-naphthol</li> <li>c. α-naphthyl amine</li> <li>d. β-naphthyl amine</li> <li>e. Anthranilic acid</li> </ul>	07
Q.3	(a) (b)	Write a note on synthesis of amino naphthol sulphonic acid. How pyrimidine is synthesized? Describe its important reactions.  OR	07 07
Q.3	(a) (b)	Write a note on evolution of dyestuff chemistry.  Define the term dyeing. Explain the forces involved in dyeing process.	07 07
Q.4	(a) (b)	Give the synthesis of anthraquinone from phthalic acid with explanation.  Describe the synthesis of sulphonation, nitration and reduction of anthracene.  OR	07 07
Q.4	(a) (b)	Write a note on sulphonation of α-naphthyl amine Give the synthesis of S-acid and Koch acid.	07 07
Q.5	(a) (b)	Write a note on coltar primaries.  Difference between dyes and pigments and give the true characteristic of dyes.  OR	07 07
Q.5	(a) (b)	Discuss hammet substitution constant. Write a note on hawarth synthesis of anthracene	07 07

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