

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV(New) • EXAMINATION – WINTER 2016

Subject Code:2142809

Date:23/11/2016

Subject Name:Chemistry of Intermediates & Dyes

Time:02:30 PM to 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.

		MARKS
Q.1	Short Questions	14
	1 Enlist some Unit Processes	
	2 What is the difference between Unit Processes & Unit Operation	
	3 State some Unit Operations	
	4 What are Mixed Acids.	
	5 Name some sulphonating agents used during sulphonation	
	6 Which groups are imparted during Halogenation	
	7 Nitrobenzene is converted to Aniline by which process.	
	8 Which dyes are used for Leather dyeing	
	9 What are colourless dyes .	
	10 What do you understand by carcinogenic compound	
	11 Give the structure of Schaffer acid	
	12 Which groups in Benzene are Para directing	
	13 Which agents are used in Bucherer reaction.	
	14 Name some Ecofriendly dyes.	
Q.2	(a) Explain the importance of Mixed acids.	03
	(b) Discuss technical parameters & conditions required during Nitration.	04
	(c) Obtain some important intermediates by using Nitration unit process from Benzene	07
	OR	
	Obtain some important intermediates by using Nitration unit process from Toluene	07
Q.3	(a) Which group is introduced during diazotistion.What property is responsible for this.	03
	(b) What are Naphols. How are they made soluble	04
	(c) Describe Diazotization reaction.	07
	OR	
Q.3	(a) Explain Reduction unit process.	03
	(b) Enlist different methods of Reduction.	04
	(c) Give manufacturing process of Phenol.	07
Q.4	(a) Give classification of Vat & Reactive dyes based on their chemical structure.	07
	(b) Write a note on Friedal Crafts reaction	07
	OR	
Q.4	(a) Write a note on Bucherer reaction	07
	(b) Give Non-Textile uses of synthetic dyes	07
Q.5	Classify Dyes based on their application methods	14
	OR	
	Explain different Orientation rules in Benzene series.	14