

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2018****Subject Code:2153608****Date:04/12/2018****Subject Name:Chemistry of Intermediates & Colorants-III****Time: 10:30 AM TO 01:00 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	(a) Give the synthesis of Ultraphore WT.	03
	(b) Write down the properties of Fluorescent Brightening Agents.	04
	(c) Briefly explain Stock's rule with suitable diagram.	07
Q.2	(a) Give the synthesis of following paper dyes: Direct Orange 102 & Red 239	03
	(b) Explain the importance of tanning agents in leather dyes.	04
	(c) Briefly explain the low molecular weight leather dyes with two synthesis.	07
	OR	
	(c) Briefly explain the importance of resorcinol leather dyes with any one synthesis.	07
Q.3	(a) Define the term Disperse Dyes. Give the properties of disperse dyes.	03
	(b) Explain the bisazo disperse dyes.	04
	(c) Briefly explain monoazo disperse dyes with heterocyclic compound as coupling compound.	07
	OR	
Q.3	(a) Discuss the Thermosol process for disperse dyes.	03
	(b) Explain the anthraquinone disperse dyes.	04
	(c) Briefly explain monoazo disperse dyes with heterocyclic compound as diazo compound.	07
Q.4	(a) Give the synthesis of Flavanthrone.	03
	(b) Explain the estimation of sulphur dyes.	04
	(c) Briefly explain the properties of sulphur dyes.	07
	OR	
Q.4	(a) Give the synthesis of Indenthrene Khakhi GG.	03
	(b) Write a short note on Anthraquinone Carbazole Vat dyes.	04
	(c) Discuss the fastness properties of Sulphur dyes.	07
Q.5	(a) Give the synthesis of Reactive Black 5.	03
	(b) Explain the present and future trends of reactive dyes.	04
	(c) Briefly explain bi-functional reactive dyes.	07
Q.5	(a) Give any one synthesis of Cold Brand Reactive Dyes.	03
	(b) How reactive dyes are superior to vat and direct dyes.	04
	(c) Briefly explain the constitution of reactive dyes.	07
