

Subject Code:2143604

Date:17/05/2019

Subject Name: Chemistry of Intermediates & Colorants-II

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	(a) What is Colour? How it can be measured?	03
	(b) Define: i) Trichromat ii) Dichromat.	04
	(c) With suitable reaction mechanism, explain the concept of coupling.	07
Q.2	(a) What do you mean by tristimulus values?	03
	(b) Explain additive & subtractive colour mixing with suitable example?	04
	(c) With suitable reaction mechanism, explain the concept of diazotization.	07
	OR	
	(c) Explain attributes of colour with the help of chromaticity diagram.	07
Q.3	(a) Explain the classification of dyes on the basis of chromophore.	03
	(b) With suitable reaction mechanism, elaborate the replacement of halogen of cyanuric chloride with change in temperature.	04
	(c) Discuss the synthesis of Vinyl sulphone reactive system with suitable chemical reaction.	07
	OR	
Q.3	(a) What are reactive dyes? Give their properties.	03
	(b) Explain basic dyes with reference to its classification, properties and applications.	04
	(c) Explain the concept of fluorescence, phosphorescence briefly by the Jablonski diagram.	07
Q.4	(a) What are the applications of reactive dyes?	03
	(b) Give the chemical structures of following diazo components used for reactive dyes: a. H-Acid b. Metanilic Acid c. Tobias Acid d. Sulphanilic Acid	04
	(c) What is CIE LAB system?	07
	OR	
Q.4	(a) Give the synthesis of cyanuric chloride with its physical properties.	03
	(b) What are FBAs? Give its applications.	04
	(c) Explain spectral reflectance curve generated by spectrophotometer.	07
Q.5	(a) Explain vat dyes with its applications.	03
	(b) Give the examples of following type of disperse dyes with its chemical structure: a. Anthraquinone disperse dye.	04
	(c) Discuss disperse dyes with its classification & examples.	07
	OR	
Q.5	(a) How would you apply a reactive dye on cellulose fibre?	03
	(b) Explain the application scheme of vat dyes on fibre with example.	04
	(c) Give the synthesis of azo dyes with its physical properties.	07
