Seat No.:	E 1 M .
Seat NO:	Enrolment No.
Jeal 110	Linoinent 110.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III(OLD) • EXAMINATION – WINTER 2016

Sul	U	Name: Chemistry for intermediate and colorants-1 (Department -I)	10
Time: 10:30 AM to 01:00 PM Instructions: Total Marks: 70			: 70
11150		Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Explain fridel craft alkylation and acylation of benzene & toluene. Give the classification of dyes based on chemical constituents.	07 07
Q.2	(a) (b)	Write a note on hammet substitution constant. Give the synthesis of following compounds from diethyl malonate a. Succinic acid b. Acetoacetic acid c. 2-methyl propanoic acid d. Adipic acid	07 07
		OR	
	(b)	 Explain why? a. Pyridine is aromatic in nature b. Pyridine is more basic than aniline c. Pyridine undergoes electrophilic substitution reaction at 3rd position d. Pyridine is less basic than aliphatic amine 	07
Q.3	(a) (b)	Give the classification of dyes based on constituents. Describe the synthesis of sulphonation, nitration and reduction of anthracene. OR	07 07
Q.3	(a) (b)	Write a note on evolution of dyestuff chemistry. Define the following term a. Bathochromic effect b. Fastness properties c. Chromophores d. Auxochrome e. Primaries	07 07
Q.4	(a) (b)	Describe method of preparation of ethyl aceoto acetate with mechanism. How pyrimidine is synthesized? Describe its important reactions. OR	07 07
Q.4	(a) (b)	Write a note on hawarth synthesis of naphthalene. Give the synthesis of amino G-acid & amino J-acid.	07 07
Q.5	(a)	Give the synthesis of a. Styrene b. Tetralene c. 2-naphthalenesulphonic acid d. m-nitrobenzoic acid	07
	(b)	Write down the structure of following compounds a. H-acid b. Tobias acid c. k-acid	07

- d. Gamma acid
- e. Peri acid
- f. R-acid
- g. Koch acid

OR

- Q.5 (a) Give the synthesis of following compounds from ethyl aceto acetate a. Crotonic acid
 - b. Propionic acid
 - c. n-butiric acid
 - d. Butanone
 - (b) Describe the difference between dyes and pigments and give the true 07 characteristic of dyes.

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