Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2162801 **Date: 27/04/2017**

Subject Name: Technology of Dyeing - II

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		**Short Questions**	**14**
	1	State one important advantage of cationic dyes.	
	2	Direct dyes are attached to silk fibres by ionic linkage-True or False.	
	3	Beam dyeing machine works on the principle----------.	
	4	State one most important precaution that should be observed during dyeing of acrylic fibres.	
	5	Dyed micro polyester fabric appears ----------than dyed normal polyester at same % shade.	
	6	The hardness of padding mangle rubber is measured in ----------units.	
	7	----------dyeing system follows solid solution theory.	
	8	Co-ordinate bonds exist in ----------dyes.	
	9	Homopolar bonds are formed by ----------dyes with cotton.	
	10	----------fastness is of major concern for disperse dye on polyester.	
	11	What precaution should be taken during dissolution of cationic dye?	
	12	RC treatment is not required in dyeing of P/C blended fabric with disperse/ vat system-True or false.	
	13	State one important limitation of carrier dyeing method.	
	14	Barriness problem is often observed in ----------fibre dyeing.	
Q.2	**(a)**	Describe dyeing of silk with reactive dyes.	**03**
	(b)	Describe dyeing of silk with basic dyes.	**04**
	(c)	Describe the dyeing of wool with acid mordant dyes. State what kind of problems arises during wool dyeing.	**07**
		OR	
	(c)	Describe with neat sketch the principle, construction and working of jet dyeing machine.	**07**
Q.3	**(a)**	Describe in brief the dyeing of nylon with acid dyes.	**03**
	(b)	Write short note on: Disperse dyes.	**04**
	(c)	Explain the principle, construction & working of Standfast molten metal dyeing machine.	**07**
		OR	
Q.3	**(a)**	What problems arise during processing micro-polyester fabric? State the corrective measure taken.	**03**
	(b)	Explain the processing of micro-polyester fabric.	**04**

	(c)	Describe with technical details the complete processing of CDPET fabrics.	**07**
Q.4	**(a)**	Describe in brief the working of padding mangle.	**03**
	(b)	Describe in brief the working of jigger dyeing machine.	**04**
	(c)	Describe the working of beam dyeing machine.	**07**
		OR	
Q.4	**(a)**	Give the classification and salient features of different acid dyes in tabular form.	**03**
	(b)	Write short note on: cationic dyes.	**04**
	(c)	Describe rapid dyeing of polyester.	**07**
Q.5	**(a)**	Enlist different types of carriers in context to their chemical constitution.	**03**
	(b)	Describe in brief carrier dyeing of polyester.	**04**
	(c)	Describe the isothermal process of dyeing of acrylic fibre.	**07**
		OR	
Q.5	**(a)**	Describe the dyeing of P/C blended fabric with disperse/reactive dye system.	**03**
	(b)	Write a brief note on thermosol dyeing of polyester.	**04**
	(c)	Explain the principle, construction & working of Longclose loose cotton dyeing machine.	**07**

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