Enrolment No._____

		GUJARAT TECHNOLOGICAL UNIVERSITY B. E SEMESTER – VII • EXAMINATION – WINTER 2012	
Su	biect	code: 172802 Date: 31/12/2012	
	•	Name: Computer Aided Designing and Computer Colour Matchin	a a a a a a a a a a a a a a a a a a a
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``	AD/C	·	
		0.30 am - 01.00 pm Total Marks: 70	
Ins	tructi	ons:	
	1.	Attempt any five questions.	
	2.	Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	Answer the following objective questions.	10
	i.	What is D-65?	
	ii.	What are K and S in K/S?	
	iii.	Reflectance varies linearly with concentration of dyes on fabric, true or false?	
	iv.	K/S has the property of additivity, true or false?	
	v.	If Da is –ve then sample is than standard and if Db is –ve then sample is	
		than standard.	
	vi.	Differentiate between 2 degree and 10 degree observer.	
	vii.	Name two widely used whiteness indices.	
	viii.	What does RGB indicate?	
	ix.	What do you mean by a pixel?	
	х.	Name any 2 softwares used for developing dobby designs.	
	(b)	Justify the need for objective color assessment.	04
Q.2	(a)	What is the need for chromaticity co ordinates? Explain the CIE chromaticity	07
		diagram with its merits and demerits.	
	(b)	Describe the process of deriving color matching functions of eye from the real	07
		primaries. OR	
	(b)	Discuss the hardware components used in CAD system used for Textile Designs.	07
Q.3	(a)	Discuss the concept of Black body radiation. Explain how color temperatures are	07
	(1)	assigned to various illuminants with the help of plots.	• -
	(b)	Justify the position of opponent color system in Computer Color matching.	07
		OR	
Q.3	(a)	Show Hue circle and discuss about its significance.	07
	(b)	Explain how color difference measurement can be used to precisely assign the	07
~ 4		fastness rating.	05
Q.4	(a)	Describe the process of developing & constructing printed designs using any CAD software.	07
	(b)	Discuss the input and output devices used in CAD system used for Textile Designs.	07
	(U)	OR	07
Q.4	(a)	Discuss the concept of acceptability and perceptibility. Enlist the various	07
Qit	(a)	systems for color difference measurement. Explain how color difference can be	07
		measured using co ordinate geometry.	
	(b)	What is shade sorting? Explain the steps involved in shade sorting based on 555	07
	(0)	shade sorting program.	07
Q.5	(a)	Write a brief note on "Use of CAD in Digital printing".	07
Q.3	(a) (b)	Explain briefly the steps for developing a jacquard design using CAD software.	07
	(0)	OR	07
Q.5	(a)	Describe the different tools of any image processing software used for developing	07
Q .5	(4)	Textile Designs.	07
	(b)	Discuss the salient features of Texprint and Cad vantage Win Printex.	07
