Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – WINTER • 2013 Subject code: 710404N Date: 30-12-2013

Su	DJECI	Code. 710-10-10	
Su	bject	Name: Image Processing	
Tiı	ne: 1	10.30 am – 01.00 pm Total Marks: 70	
		ctions:	
		. Attempt all questions.	
		. Make suitable assumptions wherever necessary.	
	3.	. Figures to the right indicate full marks.	
Q.1	(a)	Explain the basics of Image filtering in spatial domain.	07
	(b)	Explain in detail spatial resolution and gray level resolution.	07
Q.2	(a) (b)	What is Histogram? Explain in detail process of Histogram Equalization. Write a brief note on Objectives of digital Image processing.	07 07
	(b)	OR Components of Digital Image Processing, A Short note.	07
Q.3	(a) (b)	Explain in detail different models of color image. Enlist and explain various point processing techniques used for image enhancement.	07 07
		OR	
Q.3	(a) (b)	Write a note on various Image acquisition techniques. Draw block diagram of image processing in frequency domain and explain each block.	07 07
Q.4	(a)	What do you mean by Image restoration? Is original Image can be restored? Justify your answer.	07
	(b)	Give Summary of Morphological operations on Binary Images. OR	07
Q.4	(a)	Wiener Filtering process.	07
	(b)	State and explain the various application of gray scale morphology.	07
Q.5	(a)	Write a short note on Dilation and Erosion Morphological operations with suitable example.	07
	(b)	Write a short note on Hough transform. OR	07
Q.5	(a) (b)	Explain various steps performed in JPEG2000. Write a short note on HAAR transform.	07 07
