Sea	t No.:	Enrolment No	
		GUJARAT TECHNOLOGICAL UNIVERSITY	
		M. E SEMESTER – II • EXAMINATION – WINTER • 2014	
Sul	bject	code: 1724106 Date: 05-12-2014	
	U	Name: Image Matching and Registration 2:30 pm - 05:00 pm Total Marks: 70	
	tructio	•	
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Explain about computer vision system and describe its classification. What is the meaning of image matching and image registration. Explain one example of each.	07 07
Q.2	(a) (b)	Show general block diagram of stereo vision system and explain the same. Explain following terms with suitable example. (a) Multimodal registration (2) Multiview registration OR	07 07
	(b)	What are basic image matching problems ? Explain each one of them.	07
Q.3	(a) (b)	Explain about sign representation method of matching. Explain with suitable example about Rank Transform and Census Transform. OR	07 07
Q.3	(a) (b)	Explain about symbolic feature based method for image matching. What is template matching? Explain one algorithm for template matching.	07 07
Q.4	(a)	What is an affine transformation? Explain RST transform and write algorithm steps to obtain the same.	07
	(b)	What is the difference between area and feature based methods of image registration? Explain a case of feature based method. OR	07
Q.4	(a) (b)	Write steps for frequency domain methods of registration. Explain an algorithm for model based image registration.	07 07
Q.5	(a) (b)	Explain any one method used in medical image registration. What are the challenges in satellite image registration? Explain any one method that best suits for satellite image registration. OR	07 07
Q.5	(a)	What is the difference in image matching and image registration? How does registration process helps in image processing?	07
	(b)	What are the issues in license plate registration? Explain any one method that is suitable for registering images of license plate.	07
