Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER II (OLD) – • EXAMINATION – SUMMER 2016

Subject Code: 1724106 **Date:20/05/2016**

Subject Name: Image Matching and Registration

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.**

Q.1	**(a)**	What is an image matching ? Explain with suitable example	**07**
	(b)	What is an image registration ? Explain with suitable example.	**07**
Q.2	**(a)**	What are the different ways by which image registration can be classified ?	**07**
	(b)	Explain about stereo vision.	**07**
		OR	
	(b)	Give advantages of symbolic feature based technique.	**07**
Q.3	**(a)**	Explain area based processing for the hybrid matching algorithm with suitable block diagram.	**07**
	(b)	Explain projective transformation with suitable example.	**07**
		OR	
Q.3	**(a)**	Explain point pattern matching algorithm.	**07**
	(b)	Why registration is required for medical images ? Explain any one method.	**07**
Q.4	**(a)**	Describe the steps required for license plate recognition.	**07**
	(b)	Explain rotation and scaling with reference to registration.	**07**
		OR	
Q.4	**(a)**	Which are time domain methods for image registration ? Explain any one of them.	**07**
	(b)	Explain about frequency domain method for image registration.	**07**
Q.5	**(a)**	Compare area based method for registration and feature based method of registration.	**07**
	(b)	Explain image registration with reference to satellite images	**07**
		OR	
Q.5	**(a)**	Why is an automatic object recognition is a difficult problem ?	**07**
	(b)	Explain model based registration method.	**07**

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