Seat No.:	Enrolment No
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

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

Subject Code: 2722610 Date: 27		05/2016	
Tiı	me: 10 truction 1. 2.	t Name: Advanced Image Processing  0:30 am to 01:00 pm  Total Marks: ons:  Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.	70
Q.1	(a) (b)	Describe the process of Erosion and Dilation with example. What are the point processors in image processing? Brief about different types.	07 07
Q.2	(a) (b)	Discuss Mode filter and Median filter for Image Processing.  Explain Anisotropic diffusion and Force field transform.  OR	07 07
	(b)	Discuss about Averaging operator. Also describe about Gaussian averaging operator.	07
Q.3	(a) (b)	Give steps for Canny edge detection Operation. Explain Non-maximum suppression and hysteresis thresholding with figure. Explain Phase Congruency its advantages, disadvantages and uses.	07 07
Q.3	(a) (b)	OR  Describe 2 <sup>nd</sup> order edge detection operators.  Write logical code for thresholding operation.	07 07
Q.4	(a) (b)	Write short note on 3D image reconstruction.  Show how to detect edge using Sobel operator.  OR	07 07
Q.4	(a) (b)	Write logical code for template matching. Explain 3 D Image visualization and 3 D image acquisition.	07 07
Q.5	(a) (b)	Describe Arithmetic coding with an example.  Discuss about boundary descriptors.  OR	07 07
Q.5	(a) (b)	Describe Huffman coding with an example. Step by step explain greedy algorithm.	07 07
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