

	<p style="text-align: center;">ADAMAS UNIVERSITY END-SEMESTER EXAMINATION : JANUARY 2021 (Academic Session: 2020 – 21)</p>		
Name of the Program:	B.Tech	Semester:	VII
Paper Title :	Computer Vision	Paper Code:	ECS44103
Maximum Marks :	40	Time duration:	3 hours
Total No of questions:	8	Total No of Pages:	2

Answer all the Groups

Group A

Answer all the questions of the following

$5 \times 1 = 5$

1. a) What is the main difference between Computer Vision and Computer Graphics?
- b) What do you mean by Good Detection in Edge Detection?
- c) Which detection algorithm can be used for 3D Object Reconstruction?
- d) Which process does remove color information from a color image?
- e) Define Edge of an image.

GROUP –B

Answer *any three* of the following

$3 \times 5 = 15$

2. Explain about Hough Transform algorithm for fitting Circle with a diagram. How to fit a line using Least Squares Fit? Explain with an example. [3+2]
3. Explain Optimal Thresholding in detail. What are the different approaches Image segmentation having? [3+2]
4. Define Morphological Filtering with an example. Explain about Dilation and Erosion of Morphological Filtering in details. [2+3]
5. Explain about any two images format in details. Write the difference between Perspective Projection and Orthographic Projection. [4+1]

GROUP –C

Answer *any two* of the following

$2 \times 10 = 20$

6. How to detect an object in Scene? Explain about Various Algorithms used to detect object in Scene in details. [4+6]
7. What is Image Segmentation? Why is it used in Computer Vision? Explain about Generalized Hough Transform with example. [2+2+6]
8. What is Image Noise? Explain about Canny Edge Detection algorithm in details. [2+8]