SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

RAMAPURAM CAMPUS

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR (2022-2023)

CONTINUOUS LEARNING ASSESMENT-II

Sub Code/Name	**18CSE390T – Computer Vision**	**Set**	**ODD**
Year/Sem/Branch	**III/ VI/ B.Tech-CSE-AIML**	**Date**	
Max. Marks	**50**	**Duration**	**90 Mins.**

PART A (10 X 1= 10)

ANSWER ALL THE QUESTIONS

Q.No.	MCQ Questions	Marks	CO	BL	PI
1.	**What is the process of breaking an image into groups?** a) Edge detection b) Smoothing c) Segmentation d)Edge Linking	1	2	1	1.6.1
2	**Regions of the image must be** a)Joint b)Disjoint c)Connected d)Overlapped	1	2	1	1.6.1
3.	**Suppose we are using a Hough transform to do line fitting, but we notice that our system is detecting two lines where there is actually one in some example image. Which of the following most likely to alleviate this problem?** a) Increase the size of the bins in the Hough transform. b) Decrease the size of the bins in the Hough transform. c) Sharpen the image. d) Make the image larger	1	2	2	1.6.1
4.	**In Histogram-based segmentation, we measure the** a) Color or intensity of objects b) Region of objects c) Gradient d) Pixel	1	2	2	1.6.1
5	**A global descriptor describes_____** a)a complete object or point cloud b) region c)pixel d)patch	1	2	1	1.6.1
6.	**Active contour algorithm is used for** a)Edge detection b)Clustering c)Image Segmentation d)Image Filtering	1	3	1	1.6.1
7.	**Snakes are ----------** a)Joint Photographic Experts Group b)Radio Waves	1	3	1	1.6.1

	c)Two-dimensional generalization of the 1D energy-minimizing splines d)High pass filter				
8	**In scissors which shortest path algorithm is used** a) Floyd algorithm b) Depth first algorithm c) Dijkstra's algorithm d) Wharshell Algorithm	1	3	1	1.6.1
9	**Watershed segmentation is a** a) Region-Based Technique That Utilizes Image Morphology b) Compression technique c) Stitching Technique d) Snakes	1	3	1	1.6.1
10	**Mean-shift and mode finding techniques are** a) k-means and mixtures of Gaussians technique b) Laplacian technique c) Line detection d) Edge detection	1	3	1	1.6.1

PART B (4 X 4 = 16)
ANSWER ANY 4 QUESTIONS

Q. No.	Questions	Marks	CO	BL	PI
11	Discuss about Edge detection.	4	2	1	2.5.1
12	Explain Briefly about Feature Tracking	4	2	2	2.5.2
13	Explain about Hough transform technique with algorithm, examples, diagrams, and mention some of the applications of this technique.	4	2	2	2.5.2
14	Discuss in detail about Intelligent Scissors	4	3	2	2.5.1
15	What is meant by Region Splitting and Region Merging? Explain in detail.	4	3	2	2.5.2
16	Explain 2D alignment using Least Squares in detail	4	3	2	2.6.2

PART C (12X 2 = 24)
ANSWER ALL THE QUESTIONS

Q. No.	Questions	Marks	CO	BL	PI
17	a)What kinds of features need to be detected and then matched in order to establish an alignment or set of correspondences? Compare those features.	12	2	3	2.6.4
	OR				
	b) How we can quantify the performance of a matching algorithm?	12	2	2	2.7.1
18	a) Explain in detail about Mean Shift and Mode Finding	12	3	1	2.7.1
	OR				
	b)Illustrate Graph cuts and energy-based methods with neat diagram	12	3	3	2.7.1

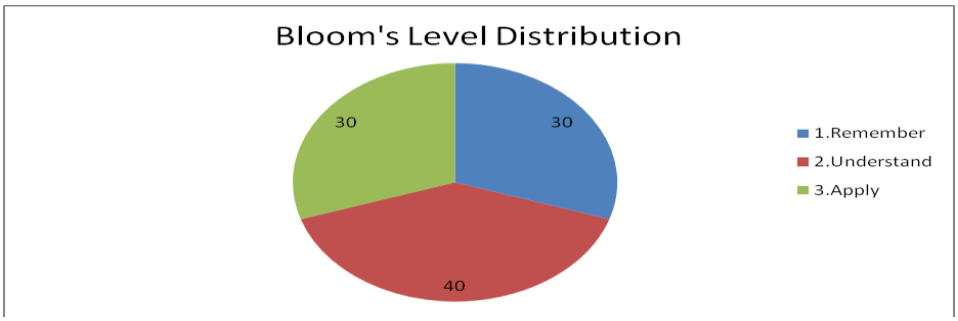
Outcome Alignment Matrix:

QUESTION NUMBER	CO distribution				
	CO1	CO2	CO3	CO4	CO5
1.		1			
2.		1			
3.		1			
4.		1			
5.		1			
6.			1		
7.			1		
8.			1		
9.			1		
10.			1		
11.		4			
12.		4			
13.		4			
14.			4		
15.			4		
16.			4		
17 a		12			
17 b		12			
18 a			12		
18b			12		
Total		**41**	**41**		
%		**50%**	**50%**		

Quality Matrix:

Question No.	BTL Distribution		
	L1	L2	L3
1	1		
2	1		
3		1	
4		1	
5	1		
6	1		
7	1		
8	1		
9	1		
10	1		
11	4		
12		4	
13		4	
14		4	
15		4	
16		4	
17a			12
17b		12	
18a	12		
18b			12
Total	**24**	**34**	**24**
%	**30%**	**40%**	**30%**

Bloom's level Distribution:



Prepared by: Course Coordinator

Scrutinised by: Verified & Approved by HOD