

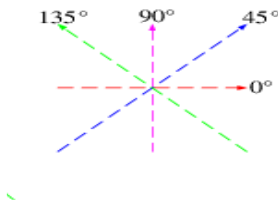


Cairo University
Faculty of Computers and Artificial Intelligence
Quiz-1 Model-1



Department: Information Technology		
Course Name: Pattern Recognition	Date: March 2023	
Course Code: IT 352	Duration: 25 Mints	
Instructor(s): Dr. Mona Soliman	Total Marks: 5 Marks	
Name : SID: Group:		

For the following image



1	1	2	1
2	1	1	1
3	2	3	1
3	2	1	0

(a) Compute GLCM matrix with $d=1, \theta=45$

(b) Get the feature vector based on the stander GLCM for the corresponding image using Energy and contrast features

Hint: Energy $E = \sum_{i=1}^n \sum_{j=1}^n glc(i, j)^2$

Contrast $c = \sum_{i=1}^n \sum_{j=1}^n (i - j)^2 glc(i, j)$

(c) What is the correct class of this image given the following training samples

Sample No.	E	C	Class
1	15	3	1
2	22	9	2
3	15	9	1
4	18	8	2