Sub:	Image Processing						Code:	15TE655
Date:	17/04/2018	Duration:	90 mins	Max Marks:	50	Sem:	6	Branch:	TCE

Answer any 5 full questions

			Marks	OBE	
				CO	RBT
1		Consider the following 2 bit image of size 5X5. Compute mean value of the intensities in the image using Histogram and compare mean value when computed directly from the sample values.	10	CO2	L4

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

2	a	What effect would setting to zero the half of lower-order bit planes have on the Histogram of an image in general?	04	CO2	L1
	b	Describe Histogram Specification.	06	CO2	L2

3		For the given 4X4 image having gray scale between [0,9] get the histogram equalized image and draw the histogram after and before equalization	10	CO2	L4
			2	3	3	2
4	2	4	3
3	2	3	5
2	4	2	4				
4		Explain the basic concepts of spatial filtering in Image enhancement and hence explain the importance of smoothing filters.	10	CO4	L4
5		Explain region based segmentation technique.	10	CO5	L4
6		Illustrate and explain how chain code is used for compression of monochrome images.	10	CO5	L4
7	a	What is global, Local and dynamic or adaptive threshold? Describe.	06	CO5	L2
	b	Explain region splitting and merging.	04	CO5	L1
8		Explain Otsu's algorithm	10	CO5	L3