



## Internal Assesment Test - I

Sub: Digital Image Processing					Cod	Code:		10EC763			
Date:	21 / 09 / 2017	Duration:	90 mins	Max Marks:	50	Sem:	6th	Brai	nch:	ECE (	(C)
	Answer Any FIVE FULL Questions										
						3.6.1	OBE				
									Marks	CO	RBT
1. What is a digital image? With block diagram, explain the fundamental steps in digital image processing.					in	[10]	CO1	L1			

3. Explain the importance of brightness adaptation and discrimination in image [10] processing. CO1

With the help of neat block diagram, explain the components of a general

CO1 L1

CO1

L1

L1

Write a short note on: 4.

(a) Image formation in the eye

purpose image processing system.

[05]

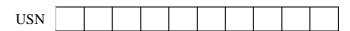
[10]

(b) Weber Ratio

[05]

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2.





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	digital image process	sing.									
	With the help of n		•	explain the co	ompone	ents of	a ger	neral	[10]	CO1	L1
	purpose image proce	essing syster	n.								
3.	3. Explain the importance of brightness adaptation and discrimination in image [10]						CO1	L1			
	processing.			1				Ü			
4.	Write a short note or	n:								CO1	L1
(a)	Image formation in t	the eye							[05]		
(b)	Weber Ratio								[05]		

5.	Explain the process of image acquisition by sensor strips and sensor arrays.	[10]	CO1	L2
6.	What is image sampling and quantization? What are the different parameters which will decide the number of storage bits of the image in discrete domain?	[10]	CO1	L1
7. (a)	With a suitable diagram, explain how n image is acquired using a circular sensor strip	[06]	CO1	L2
(b)	Explain image acquisition using micro densitometer.	[04]	CO1	L1
8. (a)	Explain the process of image acquisition using single sensor.	[06]	CO1	L1
(b)	Mention the applications of image processing.	[04]	CO1	L1

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(b)	Mention the applications of image processing.	[04]	CO1	L1



Digetal Signal Processing (10 f C 763).

- 1. Definition of mage & digital mage: 2m Block diagram: 4m Explanation of each block: 4m
- Block diagram: 5m description of each block: 5m
- 3. Graph of subjective brightness vs. intensity (log): 2m explanation of brightness adaptation: 3m emplanation for discrimination: 2.5m example for discrimation: 2.5m

(2) Image fornation in the leye Raphical representation (geometry): 2m explanation! 3m

cho Weben Rational Color definition: 2m large values of: (1.5+1.5)r



5. Image acquicition by sensor storps, Figure of line sensor! Im tique of acquiention using linears 1.5m sensor stroip (for 20 image) Explenation: 25m sensor arrays:

Figure of array censor: Im Example of mage acquisition process 2m Explanation with exemple : Im 6. Image sampling of grantization: Graphical representation: 2m definitions of eampling & quantization: 2m Explanation: 2m Parameters - explonation with equations: 4m. CM, N, k, b, L) 7. (a) Corcular sensor Anip Figure: 2m

Explanation: Am



- de Microdensitometer emplanation with diagram: 2 m + 2 m
- 8. (2) shighe sensor figure; am emploration with application Lemanuple: Am
  - intaging in EM Opertoum (any 4)

    (Am each)