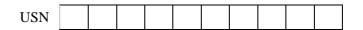
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## Internal Assesment Test - III

internal Assesment Test - III												
Sub:	Digital Image Processing Code:								e:	10EC763		
Date:	20/ 11 / 2017	Duration:	90 mins	Max Mar	rks:	50	Sem:	7th	Brai	nch:	ECE (B)	
Answer Any FIVE FULL Questions												
Marks									OBE			
								Marks	CO	RBT		
1.	1. Perform histogram equalization of the image whose pixel intensity distribution is shown [10]								[10]	CO2	L4	
	in the table below and infer the results. Draw the histogram of image before and											
	after equalization.											
	Gray level	0 1	2	3 4		5	6	7				
	Number of pixels	790 1023	850	656 32	29	245	122	81				
	Explain homomorphic filters in image enhancement with neat block diagram. [10]							[10]	CO4	L4		
	List the advantages.											
3.(a)	Discuss any four properties of two dimensional Fourier transforms. [07]							CO3	L2			
(b)	What are basis vectors? [03]								CO3	L1		
	Explain the smoothing of images in frequency domain using: (i) ideal low pass [10] filter (ii) Butterworth low pass filter							CO4	L3			

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## Internal Assesment Test - III

Sub:	Digital Image Processing Co							Code	:	10EC7	'63		
Date:	20/ 11 / 2017	Duration:	90 mins	Max	Marks:	50	Sem:	7th	Branc	ch:	ECE (B)		
	Answer Any FIVE FULL Questions												
									OE	BE			
	Marks								CO	RBT			
1.	Perform histogram equalization of the image whose pixel intensity distribution is shown [10]							CO2	L4				
	in the table below and infer the results. Draw the histogram of image before and												
	after equalization.												
	Gray level	0 1	2	3	4	5	6	7					
	Number of pixels	790 1023	850	656	329	245	122	81					
	Explain homomorphic filters in image enhancement with neat block diagram. [10] List the advantages.							CO4	L4				
	Discuss any four properties of two dimensional Fourier transforms. [07]							CO3	L2				
(b)	What are basis vectors? [03]								CO3	L1			
	Explain the smoothi filter (ii) Butterwo		-	uency c	domain	using:	(i) idea	l low	pass	[10]	CO4	L3	

5.	What is the importance of image enhancement in image processing? Explain in brief any two point processing techniques implemented in image processing.	[10]	CO6	L2			
6. (a)	6. (a) Briefly explain how arithmetic and logic operations are used for image enhancement.						
(b)	Explain high boost filtering.	[04]	CO4	L4			
7.	Explain a filtering approach for simultaneous dynamic range compression and contrast enhancement.	[10]	CO2	L4			
8.	For the given orthogonal matrix A and image u, obtain the transformed image and basis images:	[10]	CO3	L3			
	$A = \frac{1}{\sqrt{2}} \begin{bmatrix} 1 & 1 \\ 1 & -1 \end{bmatrix}  u = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$						

5.	What is the importance of image enhancement in image processing? Explain in brief any two point processing techniques implemented in image processing. Briefly explain how arithmetic and logic operations are used for image	[10]	CO6	L2
6. (a)	[06]	CO4	L5	
(b) Explain high boost filtering.				L4
7.	Explain a filtering approach for simultaneous dynamic range compression and contrast enhancement.	[10]	CO2	L4
8.	For the given orthogonal matrix A and image u, obtain the transformed image and basis images:	[10]	CO3	L3
	$A = \frac{1}{\sqrt{2}} \begin{bmatrix} 1 & 1 \\ 1 & -1 \end{bmatrix}  u = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$			