

# 2005 ANDHRA UNIVERSITY M.C.A COMPUTER

## IMAGE PROCESSING

### Elective I

Time: 3 Hrs.

Max. Marks: 100

First Question is Compulsory

Answer any four from the remaining

Answer all parts of any Question at one place.

1. a) Define connectivity.  
b) Define sampling.  
c) Define quantization.  
d) Define "noise" of an image  
e) Define Walsh transform.  
f) Explain compression due to quantization.  
g) How do you represent an image in frequency domain?  
h) Define gray value.  
i) Define mask.  
j) Define edge.
2. Give an Algorithm for FFT.
3. a) How do you Acquire an image? Explain in detail.  
b) Define and explain image sliding and image stretching.
4. a) Define and explain low pass filters in brief.  
b) Define and edge. Explain various edge enhancement filters.
5. a) Define prewitt filter.  
b) Explain in detail "Homomorphie filter".
6. a) Explain compression at the time of Image Transmission.  
b) Explain about standardization in image compression.
7. a) Explain split and merge technique for segmentation.

- a. Define and explain thresholding.
- b. Explain segmentation by PIXEL based methods.

8. a) Define Erosion and Dilation.  
b) Explain how the morphological operations may be extended to gray scale images.  
c) Explain "Skeletanization" in detail.

Educationobserver.com