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# **MSIT 4E 34 (OS)**

## IV Semester M.Sc. (I.T.) Examination, June/July 2010 IMAGE PROCESSING (Old Syllabus)

Time: 3 Hours Max. Marks: 75

PART - A

Answer the following:

 $(12\times2+1\times1=25)$ 

- 1. List any 4 applications of Image Processing.
- 2. What is digital image?
- 3. Explain any one digital image properties.
- 4. What is Laplacian?
- 5. What is lossy compression?
- 6. What is merging?
- 7. What is spatial domain approach?
- 8. What is image enhancement?
- 9. What is the effect of noise on images?
- 10. Give the equation of Fourier transforms pair.
- 11. Define Transform Coding.
- 12. What is region based segmentation?
- 13. What is Projections?

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#### PART - B

Answer any five:  $(5\times10=50)$ 

- 1. Explain the Digital Image properties with an example.
- 2. Explain Image smoothing with suitable illustrations.
- 3. What are the traditional image data structures? Explain.
- 4. Explain the role of Illumination on thresholding with an example.
- 5. Explain variable length coding and bitplane coding.
- 6. Explain simple descriptors and chain coding technique.
- 7. Describe the different topological data structures.
- 8. Show that the Fourier Transform of the convolutes of two functions is the product of their Fourier Transform.