M.E. Second Semester (Computer Science & Information Technology) (New-CGS)

13190 : Performance Analysis for Imaging Systems : 2 RNME 2

P. Pages : 2

Time : Three Hours

AW - 3607

Max. Marks : 80

Notes : 1. Assume suitable data wherever necessary.
2. Use of pen Blue/Black ink/refill only for writing the answer book.

1. a) Explain how to improve the image quality. Explain what are the various factors which degrades image quality? **7**

   b) Draw the block diagram and explain basic imaging system. **6**

OR

2. a) Explain two different properties of a linear imaging system. **7**

   b) Differentiate between elector-optical and infrared systems. **6**

3. a) State and explain in brief Threshold vision of the unaided Eye. **7**

   b) State and Explain two basic assumptions in Johnson methodology. **6**

OR

4. State and explain various image quality metrics. **13**

5. a) State and explain following properties of Fourier transform. **7**
   i) Duality
   ii) Convolution.

   b) Explain Sampling Theory. **6**

OR

6. List and Explain different radial spatial frequency windows. **13**

7. a) Explain in brief Regularized inverse method. **7**

   b) Explain in brief correlation method. **7**

OR

8. Explain- **14**
   i) Peak point
   ii) Noise Separation Frequency Point
   iii) Cutoff Frequency Point

P.T.O

9.	a)	Explain in brief Contrast Enhancement Based on Unsharp Masking.	7
	b)	Explain in brief Temporal Processing.	6

OR

10.	a)	Explain in brief Time Limited Search Model.	7
	b)	Explain in brief Spatio-Temporal Processing.	6
11.	a)	Explain in brief "Nonlinear tone scale".	7
	b)	Explain Perceptual - Based Multiscale Decomposition.	7

OR

12.	a)	Draw and explain the block diagram to determine the speed for the radiation and collimation tone scale curves.	7
	b)	Explain Image Fusion Quality Metrics.	7

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