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2027

Register Number:

Name of the Candidate:

**M.Sc. DEGREE EXAMINATION, 2010**

(GEO INFORMATICS)

(SECOND YEAR)

(PAPER-IX)

**630. DIGITAL IMAGE PROCESSING**

May)

(Time: 3 Hours

Maximum: 100 Marks

*Answer ALL questions* (5×20=100)  
*Each answer should be in about 1500 words*  
*All questions carry equal marks*

1. a) Explain various digital image format and its characteristics.  
(OR)  
b) Give a detailed account of software and hardware components in image processing system.
2. a) Mention various radiometric errors in satellite data and explain the procedures to rectify such errors.  
(OR)  
b) Explain in detail the various geometric errors in satellite image.
3. a) Explain high and low pass filtering techniques in image processing.  
(OR)  
b) Explain the principles and procedures involved in change detection.
4. a) Describe the following spatial transformation techniques.  
i) Vegetation indices ii) Principle component analysis  
(OR)  
b) Explain the following enhancement technique in multiband data.  
i) 10 Band Radioing ii) Generation of color composite images
5. a) What is meant by supervised classification? Explain the procedure in detail.  
(OR)  
b) Describe soft and contentural classification in detail?

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