

M. SC. (GEOINFORMATICS) SEM-II (CBCS) (2013 COURSE) :
SUMMER - 2018
SUBJECT : DIGITAL IMAGE PROCESSING

Day : **Monday**
Date : **23/04/2018**

Time : **02.00 PM TO 05.00 PM**
Max. Marks : 60

S-2018-1114

N. B. :

- 1) Attempt **ANY FIVE** questions.
 - 2) Figure to the right indicates **FULL** marks.
 - 3) Draw neat and labeled diagram **WHEREVER** necessary.
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- Q. 1** a) What are the various factors to be considered while performing change detection of two remotely sensed images? **(06)**
- b) What is resampling? Describe two instances where resampling is used? **(06)**
- Q. 2** a) What is geometric correction? Explain polynomial transformation and its role in geometric correction of a remotely sensed image. **(06)**
- b) What is the significance of a histogram in image processing? Explain with a diagram. **(06)**
- Q. 3** a) Draw a flow chart explaining the various steps in brief for hyperspectral image analysis. **(06)**
- b) Describe the dominant factors controlling leaf reflectance. How does it influence vegetation indices. Support your answer with a diagram. **(06)**
- Q. 4** a) Explain in detail radiometric corrections. **(06)**
- b) What are vegetation indices? Explain its significance in remote sensing of the earth's surface. **(06)**
- Q. 5** a) What do you understand by 'hybrid approach' to classification of remotely sensed image? **(06)**
- b) Differentiate between parallel and minimum distance algorithm for image classification. **(06)**
- Q. 6** Write short notes on **ANY THREE** of the following: **(12)**
- a) Directional filters
 - b) Non-linear contrast enhancement
 - c) Intensity interpolation
 - d) ISO data clustering