25/9/13

Reg. No.										

B.E /B.Tech (Full Time) DEGREE END SEMESTER EXAMINATION, NOV/DEC 2013

GEOINFORMATIC ENGINEERING BRANCH

THIRD SEMESTER

GI 9203 PHOTOGRAMMETRY I

(Regulation 2008)

Time: 3 Hours Maximum Marks: 100

Answer All Questions

PART A – (10 X 2 = 20 Marks)

1. What are the different classifications of aerial photography?
2. Define the following photogrammetric terms: end lap, side lap and exposure station.
3. Find the angular field of view for single lens frame camera having a focal length of 152mm and 230mm X 230mm format size.
4. Differentiate between Equivalent focal length and Calibrated focal length.
5. Define the terms in tilted photographs: tilt, swing and azimuth.
6. Derive the equation for scale of a vertical photograph.
7. Differentiate crab and drift.
8. List the merits and demerits of pre pointing over post pointing?
9. What are the interpretation keys used to differentiate between forest and plantation in aerial photograph?
10. List the different equipment used for interpretation of aerial photographs.

PART – (5 X 16 = 80 Marks)

11. i. Explain Scheimpflug Condition. Why it's necessary? (6)
    ii. List the uses of Photogrammetry. (6)
    iii. Differentiate contact printing and projection printing. (4)

12a. i. Discuss the component of an aerial camera with neat sketch. (8)
    ii. Explain the step-by-step procedure for processing of black and white emulsions. (8)

(OR)

12b. i. What are the various systematic errors present in the measured image coordinates? How these errors are refined? (12)
    ii. Describe about two dimension coordinate transformation. (4)

14. a) i) Discuss the importance of principle component analysis in hyper spectral imagery. (8)

ii) Write short notes on spectral mixture analysis. (8)

OR

b) i) Explain the challenges to interpretation of hyperspectral remote sensing data. (10)

ii) Write short notes on Bidirectional Reflectance Distribution function. (6)

15. a) Discuss the application of hyper spectral remote sensing for forest species mapping with hyper spectral remote sensing with case study. (16)

OR

b) Explain the application of hyper spectral remote sensing for environmental management. (16)