

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

19

B.E. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2013

Geoinformatics Engineering

8/5/13

Third Semester

GI 9203 – PHOTOGRAMMETRY -I

(Regulation 2008)

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. What are the types of aerial photographs?
2. Compare lens and sensor cameras with respect to resolving power.
3. What are the advantages of a camera prism?
4. Write the projection matrix to convert photo coordinate to world coordinate.
5. What are *floating marks and space bar*?
6. What is the best B/H ratio obtainable from Cartosat 1? Illustrate.
7. Illustrate the effects of forward image motion on the photo coordinate.
8. What are *horizontal and vertical controls*?
9. Describe a *dichotomous key in photo interpretation*.
10. How is photocenter defined?

Part B (5 X 16 = 80)

11. a. i) Describe the interior and relative orientation procedures and their significance in 3D mapping. (12)
ii) What is Scheimpflug condition? (4)
12. a. Explain the tasks involved in color photo processing. (OR)
13. a. i) Explain the principle and working of stereoscopes. (6)
ii) What is vertical exaggeration? How is the height of building estimated using this? (10)
(OR)
14. a. List and explain the various calibrations done on the camera for interior orientation.
14. a. Explain pre pointing and post pointing. (OR)
b. A project area for vertical photography of 1:12,000 scale is 10 miles long in east-west and 6.5 miles wide in north-south. The end lap and side lap are 60% and 30% respectively. A 152.4 mm with standard format camera is used. Prepare a flight plan on 1:24,000 scale map and finalize the no. of photos to be taken. Make suitable assumption, if necessary.
15. a. What are the basic approaches in photo interpretation. Explain at least two approaches with examples (OR)
b. What are interpretation keys? List and explain the elements used with respect to one example each.