

## Sheet (5)

### Scale in Photogrammetry

- 1) A 305-mm focal length camera was used to take photographs from 3800 m above MSL. Find the scale of a point that is 1360 m above MSL and the scale of a point that is at the MSL.
- 2) A 152.4-mm focal length was used to take photographs from 4000 m above MSL over an area that has an average elevation of 550 m above MSL. Find the average scale of the area. Compare this scale to that of a plane that is 200 m below the average elevation and to that of a ridge that is 150 m above the average elevation
- 3) Find the photo scale for points A (250 ft) and B (720 ft) above MSL respectively. If the flying height above the MSL equals 2900 ft. and the camera that was used to take photograph has a focal length equals 6 inch.
- 4) A line has a length of 5280 ft on the earth, and an elevation of 1000 ft. If its image appears in a photograph, taken using a 6.02" inch focal length camera, as 3.25 inch. Find the photo scale for an area that lies at 1800 ft.
- 5) A portion of a map (1:10000) is covered in a photograph, where a distance between two junctions on the photo was measured as 4.43 inch. If the same distance between the two junctions on the map equals 1.55 inch. Find the photo scale.