## I Short Answer Questions:

1. What do you understand by the term photography? (2019-20)
2. Differentiate between principal point & nadir point. (2019-20)
3. Define (i) crab (ii) Drift. (2018-19)
4. What is photogrammetric survey? (2017-18)
5. Explain the following:
   a) Stereoscopy
   b) Relief Displacement
   c) Parallax
   d) Flight Planning (2016-17)
6. Give any three advantages that an aerial photograph offers over ground based observations. (2015-16)
7. How is an aerial photograph taken? (2015-16)
8. List the characteristics of photographic images. (2014-15)
9. Describe photogrammetry. (2014-15)
10. Explain Nadir Point. (2014-15)
11. Describe Parallax Bar with a neat sketch. (2014-15)

## II Long Answer Questions:

12. Describe the function of different parts of an aerial camera with the help of a neat sketch. Also differentiate between angle of tilt and angle of swing. (2019-20)
13. Derive an expression to obtain scale of a vertical photograph. A vertical photograph was taken

at an altitude of 1000 m above MSL. Determine the scale of photograph for terrain laying at an elevations of 100 m if the focal length of the lens is 20 cm. (2019-20)

14. Derive parallax equations for determining elevation and ground coordinates of a point. (2019-20)

15. A section line AB appears to be 10.16 cm on a photograph for which the focal length is 16 cm, the corresponding line measures 2.54 cm on a map which is to a scale 1/50000. The terrain has an average elevation of 200 m above mean sea level. Calculate the flying altitude of the aircraft, above mean sea level when the photograph was taken. (2018-19)

16. What is tilt distortion? Prove that, in a tilted photograph, tilt distortion is radial from the isocentre. (2018-19)

17. Vertical photograph where taken from height of 3048 m, the focal length of the camera lens being 15.24 cm, if the prints were 22.86 * 22.86 cm and the overlap 60%, what was the length of the airbase? What would be the scale of the print? (2018-19)

18. What do you understand by the term 'Aerial Photography'? Also write a short note on the factors that influence aerial photography. (2017-18)

19. Differentiate between 'Aerial Photography' and 'Aerial Photogrammetry'. (2017-18)

20. A flooded area is covered by 140 dots on a 25 dot/cm² grid on a 1:25000 vertical aerial photographs. Find the ground area flooded. (2017-18)

21. Derive an expression for the scale of a vertical photograph. Explain how the ground coordinates and the distances can be obtained from a vertical photograph. (2016-17)

22. Define relief. Derive an expression for the displacement due to ground relief. (2016-17)

23. Two consecutive photographs were taken with a camera of focal length 37.5 cm, at a height of 7200 m. The overlap was exactly half and the prints were 22.5 cm × 22.5 cm. The height was same for both the exposures and the aircraft flew on even keel with no drift. The ground was flat at approx. 2500 m above m.s.l. Determine the scale of the photograph and the length of the airbase. (2016-17)

24. How will you extract information from an aerial photograph? Explain. (2016-17)

25. Explain the two major uses of an aerial photograph. (2015-16)

26. Illustrate the fundamentals of aerial photo-interpretation. (2015-16)

27. Elaborate the relative advantages of using aerial photos and satellite images over products of conventional survey. (2015-16)

28. Explain in detail about the characteristics of photographic images. (2015-16)

29. Define the concept of flight planning with neat sketch. State advantages & disadvantages of each type of aerial photograph in respect to others. (2014-15)

30. Explain how the height of a flagpole (falling on level terrain) can be calculated by measuring the length of its shadow in an aerial photo. (2014-15)

31. The air base of a stereopair of vertical photos is 4000 ft. & flying height above average ground is 8000 ft. The camera has 6 inch (152.4 mm) focal length & a 9 inch (23cm) format. What is the percent end lap? Assume that the spacing between adjacent flight strips is 8200 ft. What is the percentage side lap? (2014-15)