

Roll No.

MGIS–06

Photogrammetry

Master of Geographical Information System
(MGIS–11/16) Second Year, Examination, 2017

Time : 3 Hours

Max. Marks : 60

Note : This paper is of **sixty (60)** marks containing **three (03)** sections A, B and C. Learners are required to attempt the questions contained in these sections according to the detailed instructions given therein.

Section–A

(Long Answer Type Questions)

Note : Section ‘A’ contains four (04) long answer type questions of fifteen (15) marks each. Learners are required to answer *two* (02) questions only.

1. What is stereo pair and how you can obtain it ? Briefly elaborate on applications of aerial photographs in mapping of natural resources.
2. What is relief displacement ? Do you have relief displacement in orthophoto ? Briefly explain the utility of relief displacement in measurement of height of the tree on aerial photograph.
3. What do you mean by photogrammetry ? Elaborate on various measurements possible on aerial photographs.
4. What is projection system ? How is it useful in making maps ? Whether maps are different than orthophotos ?

Section-B**(Short Answer Type Questions)**

Note : Section 'B' contains eight (08) short answer type questions of five (05) marks each. Learners are required to answer *four* (04) questions only.

1. What is image displacement ?
2. What are the factors governing the quality of an image ?
3. Spectral resolution.
4. What is base map ?
5. Importance of texture in aerial photo interpretation ?
6. Orthogonal projection.
7. Importance of focal length in aerial photograph.
8. Vertical aerial photograph.

Section-C**(Objective Type Questions)**

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory.

1. Floating marks are essential for :
 - (a) Scale determination
 - (b) Stereoscopic vision
 - (c) Object shadow
 - (d) Parallax difference measurement
2. In near vertical aerial photograph any of the following types of projection is possible :
 - (a) Orthogonal projection
 - (d) Central Projection
 - (c) Parallel Projection
 - (d) All of the above

3. Spatial resolution is defined as :
 - (a) The dimension of the smallest object which can be resolved by the sensor
 - (b) The dimension of the largest object which can be resolved by the sensor
 - (c) The number of grey levels which a sensor can distinguish
 - (d) All of the above
4. Low oblique photographs are taken with the optical axis of camera tilted at an angle :
 - (a) Less than 60 degree from vertical
 - (b) Less than 45 degree from vertical
 - (c) Less than 3 degree from vertical
 - (d) Less than 30 degree from vertical
5. Photo scale is determined by :
 - (a) Ground distance/photo distance
 - (b) Photo distance/ground distance
 - (c) Photo distance /map distance
 - (d) Map distance/photo distance
6. To avoid photo gap drift of aircraft from its planned flight should not exceed :
 - (a) more than 20%
 - (b) more than 15%
 - (c) more than 10%
 - (d) more than 5%

7. The Nadir point is a point :
 - (a) obtained by parallax bar
 - (b) obtained by joining fiducial marks
 - (c) on ground beneath the perspective centre
 - (d) obtained by joining collimating marks
8. In orthogonal projection the projecting ray are :
 - (a) Parallel to the plane of projection
 - (b) Perpendicular to the plane of projection
 - (c) Horizontal to the plane of projection
 - (d) None of these
9. The height on aerial photograph can be fairly accurately measured on 1 : 10000 scale. As the scale of the photograph decreases the accuracy of height measurement :
 - (a) increases
 - (b) decreases
 - (c) no effect on measurement
 - (d) depends on expertise
10. Colour and tone on aerial photographs relates to :
 - (a) amount of light reflected by the object
 - (b) camera lense, film and filter combination
 - (c) printing process, exposure time and photo paper used
 - (d) All of the above