000106

SRI LANKA SURVEY DEPARTMENT

Promotion Examination from Class II "A" to Class I of Sri Lanka
Technological Service Officers -2016
(For Map Technological Officers)

Photogrammetry

2016.10.02 Time: Three (03) hours 1300 – 1600 hours

Answer all Questions.

---

1. (a) (i) Briefly explain the requirement of map revision of any series of maps periodically.
   (ii) What are the techniques that can be used to revise 1:50 000 map sheets?
   (b) (i) What is meant by a mosaic?
   (ii) What do you mean by rectification of aerial photographs?

(20 marks)

2. (a) Briefly explain different types of cameras which are used for aerial photography.
   (b) Discuss advantages and disadvantages of use of UAV (Unmanned Aerial Vehicle) technology for aerial photography.

(20 marks)

3. The airbase of a stereopair of vertical photos is 1400m and flying height above average ground is 2440m. The camera has a focal length of 152.4mm and a 23cm format. The spacing between adjacent flight strips is 2500m. Compute the;

   (a) Percent end lap
   (b) Percent side lap

(20 marks)

4. (a) "Flight planning is one of the most important operations in the overall photogrammetric project." Comment on this statement. (05 marks)
   (b) Name the major steps of photogrammetric flight planning. (05 marks)
   (c) If stereoscopic coverage of an area is required, the absolute minimum end lap is 50%. Give reasons for maintain an end lap of greater than 50% during aerial photography.

(10 marks)

5. (a) Briefly explain the causes of Y- parallax of image points on an aerial photograph.
   (b) The following table gives measured flight line coordinates (≈photo coordinates) of points A through D. Which point is the highest and which is the lowest in elevation?

Point	x (left photo)	x' (right photo)
A	59.9 mm	-27.2 mm
B	68.0 mm	-21.6 mm
C	99.6 mm	9.9 mm
D	100.4 mm	8.5 mm

(20 marks)