SRI LANKA SURVEY DEPARTMENT

Promotion Examination from Class II 'A' to Class I of Sri Lanka Technological Service Officers – 2015

Photogrammetry

(For Map Technological Officers)

2015.10.22 Time: Three (03) hours 1300 – 1600 hours

Answer all Questions. Each question carries equal marks.

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1. (i) Write-down the general purposes of interior, relative and absolute orientation procedures of a stereopair.

   (ii) What are the steps of interior orientation of a stereopair in an analogue stereoplotter?

   (iii) State the two methods of relative orientation of a stereopair in an analogue stereoplotter. What is the main difference between these methods?

   (iv) Briefly explain the steps and their purposes of absolute orientation of a stereopair.

   (20 marks)

2. (i) The stereoplotters can be categorized into analogue, analytical and digital based on their common characteristics. Differentiate analogue and analytical stereoplotters in context of;

   (a) Interior orientation

   (b) Relative orientation

   (c) Absolute orientation

   (15 marks)

   (ii) What is the main difference between an analytical stereoplotter and a digital workstation when the input image is concerned?

   (05 marks)

3. (i) What do you mean by a mosaic?

   (ii) Write-down the types of mosaics and their major difference(s).

   (iii) What is meant by rectification?

   (iv) Which of the following is more suitable as a map substitution? Briefly explain that under which condition(s) your answer becomes true.

   (a) Aerial photograph

   (b) Rectified aerial photograph

   (20 marks)

4. (i) Name five (05) of the required data for computation of the quantities for a flight plan.

(10 marks)

(ii) Determine the number of photographs required to cover an area 25kmX20km if the scale is 1:10000 and the format is 230mmX230mm. Take longitudinal lap as 60% and the side lap as 30%.

(10 marks)

5. (i) What is the purpose of photographic interpretation?

(05 marks)

(ii) On which factors the success in photographic interpretation depends on?

(05 marks)

(iii) Briefly explain the use of five (05) of basic characteristics of photographic images which can be used for photographic interpretation.

(10 marks)