

UNIVERSITY OF RUHUNA

2018/2019 Academic Year B. A. (Special) Degree - 2000 Level  
1<sup>st</sup> Semester Examination - October/November 2019

GEO 21633 - Principles of Remote Sensing

Answer **Four (04)** questions only.

Time: 03 Hours

- (ලකුණු 02)
01. (i) What is "Remote sensing" Define with a definition. (05 marks)
- (ii) Explain the following Remote sensing methods with an example.  
(a) Air borne  
(b) Space borne (10 marks)
- (ලකුණු 06)
02. The process of Electro - magnetic radiation is different with the transmission of energy in between the earth and space. Explain with examples. (15 marks)
- (ලකුණු 05 x 3)
03. (i) Briefly explain, what is meant aerial photographs? (03 marks)
- (ii) Why is it important for geography, explain with appropriate examples? (12 marks)
- (ලකුණු 05)
04. Draw and Interpret the cultural landscape of the provided aerial photograph using appropriate colours and symbols. (15 marks)
- (ලකුණු 10)
05. Answer the following questions using aerial photograph No. 42.
- (i) Calculate the scale factor of provided aerial photograph. (02 marks)
- (ii) Calculate the km<sup>2</sup> and m<sup>2</sup> of represent area of provided aerial photograph. (03 marks)
- (iii) Calculate the focusing distance when the flight height was 6km of 1:40,000 scaled aerial photograph. (02 marks)

(iv) Calculate the flight height when the focusing distance of aerial photograph is 15 cm and 1:20,000 scaled map. (02)

(v) Find the No. of aerial photographs to cover the square kilometers of p area using given data.

- (a) Size of photograph - 23cm x 23 cm
- (b) Focusing distance - 150 cm
- (c) Flight Height - 6 km
- (d) Forward Overlap - 70 %
- (e) Side Overlap - 30 %
- (f) Square Kilometers of selected area - 4225 km<sup>2</sup>

06. Briefly explain followings.

- (a) Peripheral information
- (b) Elements of Aerial photo Interpretation
- (c) Mapping techniques

(05 x 3 = 15)

07. (i) Describe the process of inactive and active remote sensing. (03)

(ii) Describe the application of passive remote sensing providing appropriate examples. (12)

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