

Uva Wellassa University of Sri Lanka
Faculty of Science and Technology
Department of Science and Technology
300 Level 2nd Semester Examination – Jan./Feb. 2016
MRT 341-2 Remote Sensing and Geographic Information Systems



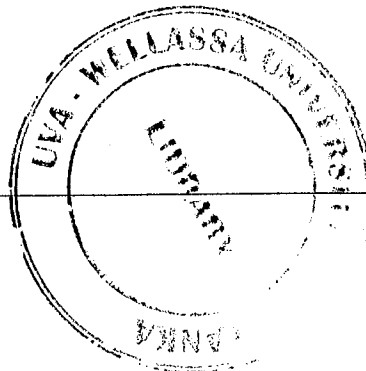
Instructions to candidates

Duration: Two (02) hours

Number of questions: Four (04) essay questions

Answer all questions

Mark allocation: 100



1.
 - a. Why is the datum important in GIS?
 - b. Explain importance of map projection.
 - c. List three types of map projections.
 - d. Solar radiation is scattered by the atmosphere. Explain the three types of scattering processes that occur.

(30 mark)

2.
 - a. Briefly describe different elements used in image interpretation.
 - b. Explain why metadata are important when determining data quality.
 - c. Briefly discuss GIS functions.

(30 mark)

3.
 - a. Define spectral signature.
 - b. Define and differentiate between panchromatic, multispectral and hyperspectral sensors.
 - c. Briefly explain the factors that influence the spectral characteristics of natural water bodies. Compare these factors with those of deep ocean water.

(30 mark)

4. Write short notes on the following.
 - a. Spatial resolution
 - b. Filters
 - c. Triangulated Irregular Network (TIN)
 - d. Vector data

(10 mark)