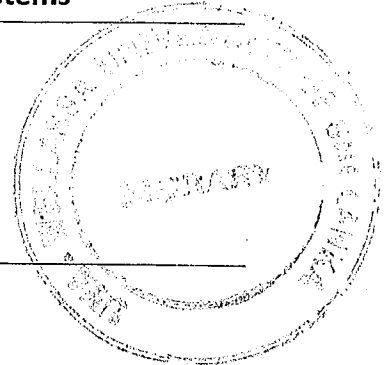


**Uva Wellassa University of Sri Lanka**  
**Faculty of Science and Technology**  
**Department of Science and Technology**  
**300 level 2<sup>nd</sup> semester Examination – Dec./Jan. 2016/17**  
**MRT 341-2 Remote Sensing and Geographic Information Systems**



**Instructions to candidates**

**Duration: Two (02) hours**

**Number of questions: Four (04) essay questions**

**Answer all questions**

**Mark allocation: 100**

1. Define the following terms in the context of remote sensing:

- a. Spatial resolution
- b. Polar and geostationary orbits
- c. Topographic normalization
- d. Raster data
- e. Sun elevation

(25 mark)

2.

- a. Explain the difference between multi spectral remote sensing and hyperspectral remote sensing.
- b. What are the components of a geographic coordinate system?
- c. List five (5) features of metadata.

(25 mark)

3.

- a. Explain the difference between attribute and spatial data. Give examples.
- b. What is Universal Transverse Mercator (UTM) ?
- c. Explain importance of map projection.

(25 mark)

4.

- a. Briefly discuss applications remote sensing techniques in mineral exploration.
- b. Describe two types of scattering that occur in the Earth's atmosphere

(25 mark)

40