

**Uva Wellassa University**  
**Faculty of Animal Science & Export Agriculture**  
**BSc in Palm and Latex Technology and Value Addition**



**End Semester Examination – February/March 2011**  
**Year II Semester I**

**PLT 241-0: Introduction to GIS and Remote Sensing**

**Instructions**

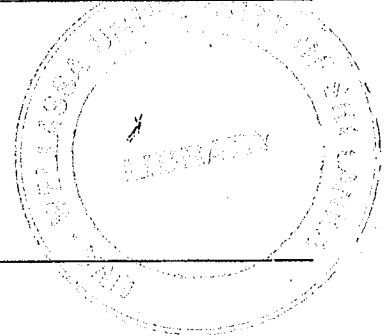
Answer **all** questions

No. of questions : Four (04)

No. of pages : One (01)

Time allocated : One hour (01 hr)

Total marks allocated : 100



1. (i) Describe the basic features of topographic maps.  
  
(ii) Calculate the total area (in square km) covered by a topographic map if its corner coordinates have following values.  
Bottom left (southwest) – 125000m E, 200000m N  
Top right (northeast) – 165000m E, 225000m N  
  
(iii) If the scale of the above map is 1:50,000 what is the shortest distance on the map (in cm) between its western and eastern margins?
2. Write illustrated notes on the followings.
  - (i) Method of georeferencing of satellite images
  - (ii) Principles of digital image classification applied to satellite images
3. Explain the interactions that take place when electromagnetic radiation from the sun is incident on earth's surface objects. Describe how they affect the appearance of satellite images. Illustrate your answer using representative spectral reflectance curves.
4. Discuss three (03) applications of GIS explaining possible data layers that may be required for the analysis in each case.

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