UNIVERSITY OF KWAZULU-NATAL
WESTVILLE/HOWARD COLLEGE CAMPUS
SUPPLEMENTARY EXAMINATION: JUNE 2013

SCHOOL: AGRICULTURAL, EARTH AND ENVIRONMENTAL SCIENCES
LEVEL: III
MODULE: GIS AND REMOSTE SENSING
CODE: ENVS316

DURATION: 3 HOURS   **TOTAL MARKS: 300**

INTERNAL EXAMINERS: DR M. GEBRESLASIE AND DR N. NGETAR

EXTERNAL EXAMINER: PROF S GRAB

INSTRUCTIONS:

This paper consists of TWO SECTIONS in ONE page

Answer THREE questions. Choose at least ONE question from EACH SECTION, and a THIRD one from either SECTION

SECTION A

All questions are worth 100 marks

1. GIS should be able to support a variety of vector and raster data formats. Describe and discuss the different vector and raster data formats used in GIS.

2. You are employed by an organization as a GIS specialist to help them implement a new GIS program as part of its practice and functionality. Discuss in detail the entire implementation process.   .

3. Differentiate between data quality, accuracy and precision in GIS. Outline the methods used in assessing error in spatial data.

SECTION B

All questions are worth 100 marks

4. Explain and discuss the different resolutions and associated issues in remote sensing.

5. Not all energy from a source is incident on a target. Discuss this statement, with reference to energy interactions within the atmosphere.

6. Geometric distortions are common phenomena in remotely sensed data. Using diagrams, discuss the different types of geometric distortions and their correction.