

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

SCHOOL OF NATURAL AND APPLIED SCIENCE

DEPARTMENT OF GEOGRAPHY

FIRST SEMESTER 2013/2014 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: REM311

COURSE TITLE: PRINCIPLES AND DEVELOPMENT OF REMOTE SENSING

INSTRUCTIONS: Answer question number one (1) and any other two questions of your choice. Credit will be given for the use of specific examples and appropriate diagrams.

TIME ALLOWED: 2HOURS

- 1(a). Define Remote sensing and draw the Electromagnetic Spectrum (EMS).
- (b). Explain the main characteristics of Electromagnetic Radiation.
- (c). Spectral bands have no clear cut between themselves, explain.
- 2(a). Define optical system and explain its mode of operations?
- (b). Discuss the various optical sensors' wave length.
- 3(a). What is RADAR?
- (b). Mention and briefly explain the various RADAR bands.
- (b). Explain the functions and advantages of RADAR.
4. Explain the interaction of electromagnetic radiation from the source to the target.
- 5(a). What is a sensor?
- (b). Mention and explain the kind of sensors we have.
- (c). What are the criteria for selecting a sensor to be used?