FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF SCIENCE AND SCIENCE EDUCATION
DEPARTMENT OF GEOGRAPHY

FIRST SEMESTER 2009/2010 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: REM 313
COURSE TITLE: Optical Systems
Instructions: Answer any four questions. Credit will be given for relevant illustrations and examples

TIME ALLOWED: 2½ Hours

1. Using a simple diagram, describe the mode of operation of a simple camera.
2. Assume that you are a professional photographer; explain to a group of student of G.S.S. Minna how a colored film is developed.
3. Using relevant examples compare and contrast optical mechanical and linear array scanner.
4. Distinguish between 'push broom' and 'whisk broom' mode of image acquisition.
5. a) Why are hyper spectral remote sensors similar to spectrometers?
   b) Distinguish between conventional remote sensors and hyper spectral remote sensors with two examples of each.
6. Identify the major characteristics of optical, thermal and radar wave bands.