FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI,
SCHOOL OF AGRICULTURE AND AGRICULTURAL TECHNOLOGY,
DEPARTMENT OF SOIL SCIENCE AND TECHNOLOGY,

2014/ 2015 HAMATTAN SEMESTER SESSION EXAMINATION.

COURSE CODE: SST 511: Units :2

COURSE TITLE: Remote Sensing Application in Soil Science and Agriculture.
INSTRUCTIONS: ANSWER FIVE QUESTIONS with at least two from each section.
Time: 2 hours thirty minutes.

SECTION A.

1. What are the benefits of remote sensing technologies over the methods of soil survey. (14 marks).

2 Enumerate the difficulties one may encounter in soil studies using remote sensing and aerial photography. 14 marks.

SECTION B

3. As a consultant to the National bureau for space studies, by defining photogrametry, fully discuss the photogrammetric activities that must be carried out for a successful flight trip. (14 marks).

4 (a) Draw the Georg Wiora's Data Model of photogrammetry. (2 marks).
(b) What are the qualities of a good aerial photograph (10 marks).
(c) What are the features that must be seen in an aerial photography (2 marks)

5 (a) Given that that the scale of a photograph is 1/50 000, and the size of the photo as 11.3 cm. Determine the total no of images required to cover the area for producing a photo map of an agricultural farm (10 marks).
(b) Draw a typical picture of an airphoto (4 marks).

6 (a) What are the general principles of an air photo (8 marks).
(b) Explain any three elements of an air photograph (6 marks)