**

**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**University Village, Plot 91 Cadastral Zone, NnamdiAzikiwe Express Way, Jabi - Abuja.**

**FACULTY OF SCIENCES**

**ENVIRONMENTAL SCIENCE AND RESOURCE MANAGEMENT**

**JANUARY/FEBRUARY 2018 EXAMINATIONS**

**COURSE CODE: ESM 392 CREDIT UNITS: 2**

**COURSE TITLE: PRINCIPLES OF REMOTE SENSING TIME ALLOWED: 2 HOURS.**

**Instruction:** Attempt question number one (1) and any other three (3).

**1.**a. Discuss any two platforms of remote sensing **(5marks)**

b. Discuss LANDSAT and NIGERSAT as examples of onboard space-borne platforms. **(5marks)**

c. Discuss any two procedures for Digital Image Enhancement. **(5marks)**

**d.** Explain the termaerial photography? **(5marks)**

**e.** Briefly stateany four areas of the applications of Remote Sensing in Urban and Regional Planning

**(5marks)**

1. Discuss supervised classification’ and ‘unsupervised classification’ of digital image photographs. **(15marks)**
2. Discuss the various imaging systems of the remote sensing techniques **(15 marks)**
3. Write a short notes on the following:

**a**. Electromagnetic Radiation **(3marks)**

**b**. Wavelength and Frequency **(3marks)**

**c.** Electromagnetic Spectrum **(3marks)**

**d**. Visible Spectrum **(3marks)**

**e**. Radiation Principle **(3marks) (15marks)**

1. Discuss the history of aerial photographyin Nigeria **(15marks)**