



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**14/16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS**  
**SCHOOL OF SCIENCE AND TECHNOLOGY**  
**JUNE/JULY EXAMINATION**

**COURSE CODE: ESM421**

**COURSE TITLE: Elements of Land Survey**

**TIME ALLOWED: 2 HOURS**

**INSTRUCTION: Answer questions 1 and any other Three questions**

Q1. (a) Define surveying  
(2 .5marks)

(b). Explain 4 (four) criteria involved in classification of survey.  
(2 .5 marks)

(c). Mention 3 (three) processes of surveying and explain any 2 (two) of the processes(2 .5marks)

Q2. As an environmental officer attached to the survey unit of the ministry of environment in your state give the outline of the equipment's and their suitability for a road project which has been approved by the governor of the state. (7.5 marks)

Q3. In the course of an onshore trip embarked by some shell staff in the Niger Delta they couldn't trace their way back to the office with in the time given to them. What is the possible guide you will give to them to enable them trace their way back? (7.5 marks)

Q4.( a). Explain the term leveling.  
(3 marks)

(b) Mention any 4 (four) equipment used in leveling and explain in detail 2 (two) of them.

(4.5 marks)

Q5. You have been appointed as an officer to supervise the impact of setting an MTN mast in your local government area. Which processes of chain survey will you adopt to deliver the project successfully?  
(7.5 marks)

Q6a. Define the following terms.  
(4 marks)

a. Bench mark (BM)

- b. Datum
- c. Foresight
- d. Backsight

b. with the aid of a sketch diagrams and tabulations explain the two methods which are used in the booking and calculation of the reduced level.(3 ½ marks)