

NATIONAL OPEN UNIVERSITY OF NIGERIA 14-16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS SCHOOL OF MANAGEMENT SCIENCES JANUARY/FEBRUARY 2013 EXAMINATION

ESM 421: ELEMENTS OF LAND SURVEY

Answer Question 1 and any other three questions (Four questions in all).

Time: 2 Hrs 30mins

Credit Unit: 2

- 1a. What is surveying?
- b. What are the primary divisions of surveying?
- c. Classification of surveying may be based on the instruments used.

Write short notes on any FOUR of these survey instruments.

2. With the help of illustrations describe concisely how the following

obstacles to chain surveying may be overcome without the use of

surveying instruments other than the chain, tape, and ranging rods:

- a. A hill impeding sighting between stations on a line to be pegged out and chained.
- b. A wide river, impeding chaining but not sighting.
- c. A building, passable on one side only, which impedes chaining and sighting.
- d. A wall of considerable height, impeding both chaining and sighting.
- 3. Differentiate between the Prismatic compass and Surveyor's compass.
- 4. Explain any FOUR of the following terms:

a. Datum b. Bench Mark c. Backsight

> d. Foresight e. Reduced Level

- 5a. What is plane tabling survey?
 - Describe the operational steps in plane tabling survey. b.
- A closed traverse when plotted from field observations, may not close

close due to some errors. Explain the procedure to adjust the enterpolate. closure.