

**National Open University of Nigeria**

**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**

**Faculty of Science**

**NOVEMBER, 2018 EXAMINATIONS**

**COURSE CODE: ESM 421**

**COURSE TITLE: ELEMENTS OF LAND SURVEYING**

**CREDIT: 2 Units**

**TIME ALLOWED: 2 Hours**

**INSTRUCTION: Answer Question ONE (1) and any other THREE (3) Questions**

1a) Write short notes on the following procedures in Reconnaissance survey (**15mks)**

1b) Based on the instrument used surveys can be classified into (**5mks)**

1c) Discuss the three types of errors in survey (**3mks)**

1c) Name the two methods used in triangulation survey (**2mks)**

2a) What is Surveying (**5mks)**

2b) Surveying can be classified based on various criteria. (**10mks)**

3a) You have been contracted to carry out the survey of a parcel of land for a residential building. Describe the survey processes involved. (**12mks)**

3b) List the various types of obstacles encountered in the course of chaining (**3mks)**

**4**(a) Distinguish between the followings:

i Ranging and chaining

ii Offset and Booking (**6mks)**

4b) Discuss the purpose, suitability and unsuitability of chain survey as one of the earliest survey methods. (**9mks)**

5a) State the main objective of Surveying **(3mks)**

5b) Explain the primary divisions of surveying, and justify the basis for this division. **(6mks)**

5c) Explain briefly the basic principles of surveying. **(6mks)**