



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
OCTOBER, 2019_2 EXAMINATIONS

COURSE CODE: ESM 421

COURSE TITLE: ELEMENTS OF LAND SURVEYING

CREDIT: 2 Units

TIME ALLOWED: 2 Hours

Instruction: Attempt question number ONE (1) and any other THREE (3) questions. Question number one (1) carries 25 marks, while the other questions carry (15) marks each.

- 1a) Highlight the scope of primary divisions of surveying **(8marks)**
- 1b) Differentiate the classification of survey based on the following criteria **(17marks)**
- i) Instrument Used **(5marks)**
 - ii) Method Used **(8marks)**
 - iii) Purpose **(4marks)**
- 2a) Give a definition of surveying **(2marks.)**
- 2b) Outline the objectives of surveying **(3marks.)**
- 2c) Explain the processes you would undertake in carrying chain surveying **(10marks)**
- 3a) Enumerate on the generally practices adopted in every surveying process **(6marks)**
- 3b) Explain what plane tabling means **(3 marks.)**
- 3c) Describe the instruments used in plane tabling **(6marks)**
- 4a) Identify the types of survey compass that can be used for surveying **(4marks)**
- 4b) Describe the steps you would adopt in using the plane tabling method of survey **(6marks)**
- 4c) Using a properly labelled diagram illustrate the radiation method of plane tabling **(5marks.)**
- 5a) Define the following terms in the levelling register **(5marks)**
- Datum **(1mark.)**
 - Bench Mark (B.M) **(1mark.)**
 - Back sight **(1mark.)**
 - Foresight **(1mark.)**
 - Reduced Level **(1mark.)**
- 5b) Explain the steps that can be applied when employing the plane tabling methods using the following; **(10marks)**
- i) Radiation Method **(5marks).**
 - ii) Intersection Method **(5marks)**