



National Open University of Nigeria
Plot 91, Cadastral Zone, NnamdiAzikiwe Expressway, Jabi - Abuja
Faculty of Science
2020_2 EXAMINATIONS

COURSE CODE: ESM422

COURSE TITLE: Resource Evaluation

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) Expatriate on the evolution of fluid dynamics as a discipline **(19marks)**
1b) Discuss the relevance Electrical and Electromagnetic geophysical techniques in resource evaluation **(6marks)**
- 2a) Enumerate on the concept as postulated in the landscape evolution model **(11marks)**
2b) How is solid mechanic relevant in resource evaluation? **(4marks)**
- 3a) Define the concept of impedance **(8marks)**
3b) What is Induced Polarization (IP) **(7marks)**
- 4a) Explain the workings of seismometers. **(7marks)**
4b) Describe the process for the phenomenon known as mode conversion for a non-normal incidence **(8marks)**
- 5a) Highlight the advantages that makes the reflection seismic useful in resource evaluation **(5marks)**
5b) Highlight the disadvantages of seismic refraction **(5marks)**
5c) Explain the scope of quantitative geomorphology **(5marks)**