



**National Open University of Nigeria**  
**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**  
**Faculty of Science**  
**2023\_2 EXAMINATIONS**

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**COURSE CODE: ESM 422**

**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) Highlight five weaknesses of market price approach of resource evaluation. **(5 marks)**

1b) Describe Eolian processes. **(5 marks)**

1c) Enumerate on the steps that comprise a generic cost-benefit analysis **(5 marks)**

1d) State the principles of cost benefit analysis. **(10marks)**

2a) Give a vivid account of tectonic effects on geomorphology. **(6marks)**

2b) Explain how biology can influence geomorphic processes **(9 marks)**

3a) Explain quantitative geomorphology **(7marks)**

3b) Mention five methods to the income approach of resource evaluation. **(5 marks)**

3c) Identify three sections of a typical contingent valuation method **(3 marks)**

4a) State Snell's law and its applications **(3 marks)**

4b) Explain how P-wave refraction evaluates compression wave **(7marks)**

4c) Enumerate five applications of reflection seismology **(5 marks)**

5a) What do you understand by the word geomorphometry? **(5 marks)**

5b) State five steps of implementation commonly used in geomorphometry **(5 marks)**

5c) State five disadvantages of refraction seismic observations **(5 marks)**