



**CRAWFORD UNIVERSITY, IGBESA,
FAITH CITY, IGBESA, OGUN STATE
COLLEGE OF NATURAL AND APPLIED SCIENCES
GEOLOGY AND MINERAL SCIENCES PROGRAMME
2021/2022 HARMATTAN SEMESTER EXAMINATIONS**

Course Title: Engineering Geology

Course Code: GEM 465

Instructions: Answer Question 1 and any 3 Others.

1. Give a detailed account of activities involved in carrying out geological site investigation.
2.
 - a.) Define Geotechnics and discuss how it is applied?
 - b.) Explain the term terrain and mention two (2) reasons why terrain classification is important to an engineer?
 - c.) What does the term soil mean to a geologist? Give a detailed description of soil composition.
 - d.) Texture is one of the major physical properties of soil. How is it used to classify soils? (Your explanation must include graphical representation.)
 - e.) Soil is a weathering product of rocks. Explain?
3.
 - a. Give a detailed description of sieve and hydrometer analysis in measuring grain size distribution.
 - b. Explain the following terms:
(i.) Dry Density (ii.) Buoyant Density (iii.) Water Content (iv.) Void Ratio
(v.) Porosity.
4.
 - a. Explain the term "Dams"
 - b. Classify Dams based on use, construction material and structure.
5.
 - (a) Give a comprehensive description of dewatering processes.
 - (b) Highlight the processes used to determine grain size distribution.
6.
 - (a) Explain CBR.
 - (b) State the apparatus used, the test procedure and its uses.