



**CRAWFORD UNIVERSITY, IGBESA,  
COLLEGE OF NATURAL AND APPLIED SCIENCES  
GEOLOGY AND MINERAL SCIENCES PROGRAMME  
2020/2021 HARMATTAN SEMESTER EXAMINATIONS**

**COURSE TITLE: ENGINEERING GEOLOGY      COURSE CODE: GEM 465**

**TIME ALLOWED: 2 Hours**

**INSTRUCTION: ATTEMPT ANY FOUR QUESTIONS**

1.
  - a. Explain Geotechnics and its Applications
  - b. Give a brief description of terrain and its classification.
  - c. Highlight the application of soil mechanics.
  
2.
  - a. Give a detailed description of soil and its composition
  - b. Give a textural classification of soil based on grain size and percentage grain size.
  
3.
  - a. Briefly explain "Dewatering" and the methods of dewatering.
  - b. Explain 3 Types of Dewatering.
  
4. Give a detailed description of sieve and hydrometer analysis in measuring grain size distribution.
  
5.
  - a. Explain the term "Dams
  - b. Classify Dams based on use, construction material and structure.
  - c. What are the engineering geological considerations on a site where dams are to be constructed.
  
6.
  - a. Explain CBR?
  - b. State the apparatus used in CBR, the test procedure and its uses.