



ELIZADE UNIVERSITY, ILARA-MOKIN
ONDO STATE

FACULTY: BASIC AND APPLIED SCIENCES

DEPARTMENT: PHYSICAL AND CHEMICAL SCIENCES

FIRST SEMESTER EXAMINATIONS

2019/2020 ACADEMIC SESSION

COURSE CODE: AGY 403

COURSE TITLE: ENGINEERING GEOLOGY

DURATION: 2 ½ Hours

HOD's SIGNATURE

A rectangular box containing a handwritten signature in black ink. The signature is cursive and appears to read 'Gabriel F. Adele'.

TOTAL MARKS: 60

INSTRUCTIONS: ANSWER THREE (3) QUESTIONS IN ALL.

1.
 - (a) Discuss the importance of Engineering Geology.
 - (b) Define the following Atterberg limits:
 - (i) Liquid limit
 - (ii) Plasticity index
 - (iii) Plastic limit
 - (iv) Shrinkage limit

2.
 - (a) List the three major soil classification systems
 - (b) Explain soil strength and compressibility as related to engineering soil properties
 - (c) A soil sample in its undisturbed state was found to have volume of 105cm^3 and mass of 201g. After oven drying the mass got reduced to 168g. Compute:
 - (i) water content
 - (ii) Dry density
 - (iii) void ratio. Take $G = 2.7$

3.
 - (a) What is engineering property of rock?
 - (b) Discuss four factors that influences the engineering properties of rocks
 - (c) Write extensively on two laboratory soil tests

4.
 - (a) What is site investigation?
 - (b) Discuss the objectives of site investigation.
 - (c) Define the following geological cycle events:
 - (i) Weathering
 - (ii) Transportation
 - (iii) Deposition
 - (iv) Upheaval