ELIZADE UNIVERSITY, ILARA MOKIN

FACULTY OF BASIC AND APPLIED SCIENCES

DEPARTMENT OF PHYSICAL AND CHEMICAL SCIENCES

FIRST SEMESTER EXAMINATONS 2019/2020

COURSE CODE: AGY 305 **CREDITS:** 3

COURSE TITLE: SEDIMENTOLOGY **TIME ALLOWED:** 3 HOURS

INSTRUCTION: Answer Four Questions, Question No. 1 is Compulsory.

TOTAL MARKS: 60 Marks

1). Using the Logarithmic Phi Scale proposed by Udden-Wentworth and Krumbein (1934), convert the following values of a grain in meters to Phiϕ values.

a) 44.4m b) 49m c) 59m d) 79m e) 1790m f) 2032m g) 3m h)1/4m

i) 790m j) 1/3m 20 marks

2a) With the aid of appropriate diagram, describe in detail the processes involved in the formation and interpretation of Sedimentary rocks. 12 marks

b) Enumerate the product formed from subaerial weathering processes and types of sedimentary rocks formed from these products. 8 marks

3). Write short notes on the following:

i) Predepositional structures ii) Post depositional Structures iii) Conglomerates iv) Coal

v) Syndepositional structures 20 marks

4a) Explain the term Sedimentary Depositional Environments. 5 marks

b) Enumerate the common depositional Environments in which sedimentary rocks are formed. 15 marks

5a) Describe the bulk properties of a typical siliciclastic sedimentary rock. 10 marks

b) Briefly differentiate between calcareous and carbonaceous deposits. 10 marks

6a) Describe the principal diagenetic processes and changes in siliclastic sedimentary rocks during burial. 10 marks

b) Discuss in brief types and importance of sedimentary rocks. 10 marks