



# UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA

## FIRST SEMESTER EXAMINATIONS, NOV/ DEC. 2018

COURSE NO: ES 161

COURSE NAME: PHYSICAL & STRUCTURAL GEOLOGY

CLASS: ES 1

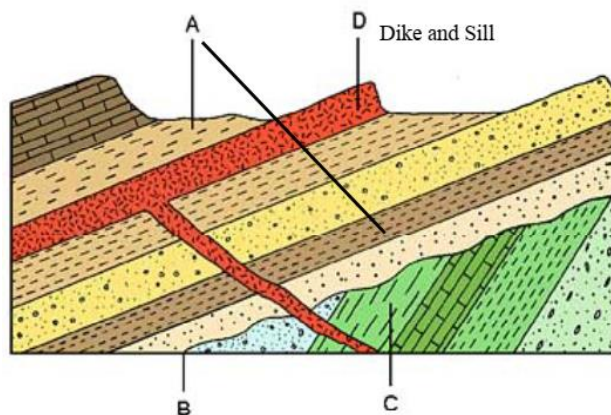
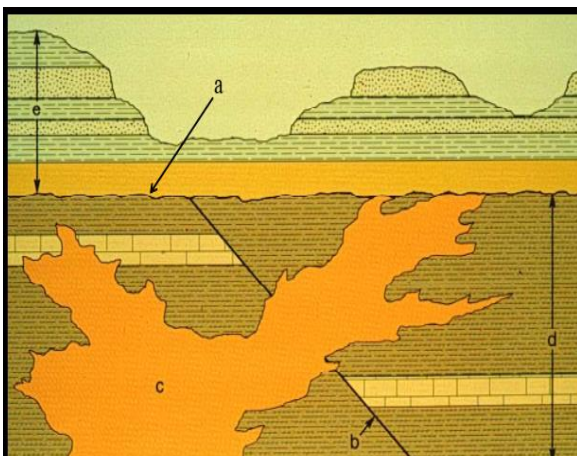
TIME: 3 HRS

Name: \_\_\_\_\_ Index Number: \_\_\_\_\_

*The Questions are put into Two Sections (A and B). Answer All the Questions under Each Section.*

### Section A

- 1a. Why do we need to study the Earth on which we live on? (5 marks)
- 1b. Describe how sedimentary, metamorphic and igneous rocks are formed. Sketch the Rock Cycle to illustrate your description. (15 marks)
2. Define the following terms:
- |                         |                 |             |
|-------------------------|-----------------|-------------|
| a) Unconformity         | b) Hanging wall | c) Xenolith |
| d) Sublimation          | e) Fault        | f) Fold     |
| g) Angular unconformity | h) Anticline    | i) Mineral  |
| j) Stratigraphy         |                 |             |
- (20 marks)
- 3a. Explain what causes the movement of plates of the earth crust? (10 marks)
- 3b. Give 3 evidences of the internal heat of the Earth (6 marks)
- 3c. What elements make up the core of the earth? (4 marks)
- 4a. Explain 5 principles of stratigraphy (10 marks)
- 4b. Determine the sequence of events in the diagrams below (10 marks)



**Section B**

- i. The largest defined unit of time is the ..... , composed of .....
- ii. Periods are divided into .....
- iii. Sedimentary rock formed in the time spans of Eon is chronostratigraphically known as .....
- iv. Sedimentary rock formed in the time spans of Period is chronostratigraphically known as .....
- v. Fault that has the hanging wall thrown down is called .....
- vi. Strike slip fault that moved to the right is known as .....
- vii. The geologic Era known to have reptiles is .....
- viii. The only supereon on the Geologic Time Scale is the .....
- ix. What elements are used in absolute age dating of rocks .....
- x. The present is the key to the past is .....

20 Marks

**E. B. Fiadonu** / Assoc. Prof. M. Affam