UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA

FIRST SEMESTER EXAMINATIONS, NOV/DEC 2018

COURSE NO: GM, MN, MR & ES 259
COURSE NAME: GEOLOGY OF GHANA
CLASS: GM, MN, MR & ES 2 TIME: 3 HOURS

Name**:** _____Index Number: _____

Answer question one (1) and any other two (2) questions. Marks will be awarded for good presentation.

1.

a. Write short notes on the following as applied in geology

i.	Eburnean orogeny	ii.	Assimilation
iii.	Amphibolite facies	iv.	Gondwanaland
v.	Recumbent folds	vi.	Lode
vii.	Granitoids	viii.	Geosynclinal theory

2 marks each

b. Describe the four (4) major volcanic events that occurred since the Pan-African event. ***(8 marks)***

c. Write the stratigraphy of the Togo series and explain the oldest member of the series. ***(6 marks)***

2.

a. The classification of the sediments in the Voltaian have been difficult due largely to two reasons. What are they? ***(2 marks)***

b. Where in Ghana do rocks of the Tarkwaian outcrop? ***(2 marks)***

c. Describe the Tarkwa Phyllite ***(4 marks)***

d. In the Dahomeyan, areas occupied by the mafic gneisses are especially flat and areas occupied by felsic gneisses tend to give rise to gently undulating topography. Explain this phenomenon. ***(4 marks)***

e. Write short notes on the Acid Dahomeyan and composite groups ***(3 marks)***

3.

a. Arrange the following in increasing grade of metamorphism:
Gneiss, Slate, Migmatite, Schist, Phyllite, Shale ***(3 marks)***

b. List four intrusions in the Dahomeyan ***(4 marks)***

c. From your knowledge on the Geology of Ghana, how do you understand Akroso Conglomerate? ***(2 marks)***

d. List all the types of gold deposits in Ghana and explain the deposit which is associated exclusively with the Tarkwaian. ***(6 marks)***

4.

a. List two (2) evidence that supports that the Buem formation is not synchronous with the Middle Voltaian. ***(2 marks)***

b. List the stratigraphy of the Sekondi Series stating two rock types in each case. ***(9 marks)***

c. How are the veins and lode type deposits distributed in Ghana? ***(4 marks)***

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