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FACULTY: BASIC AND APPLIED SCIENCES
DEPARTMENT: PHYSICAL AND CHEMICAL SCIENCES
FIRST SEMESTER EXAMINATIONS
2017/2018 ACADEMIC SESSION

COURSE CODE: AGY 309
COURSE TITLE: GENERAL PETROLOGY
DURATION: 2 Hrs 30 Mins

3 Units

HOD's SIGNATURE

Matriculation Number: _____

TOTAL MARKS: 60

INSTRUCTIONS: Answer four (4) questions in all. Question one (1) is compulsory. *Use of appropriate illustrative diagrams will be rewarded*

1. (a) Define metamorphism.
(b) Write short notes on the following metamorphic changes:
(i) Textural changes (ii) Mineralogical changes
(c) Discuss
(i) contact metamorphism
(ii) the succession of metamorphic rocks that form as shale experiences progressively higher grades of regional metamorphism.

2. (a) What are clastic sedimentary rocks?
(b) Discuss the following types of clastic rocks:
(i) Arkose
(ii) Graywacke
(iii) Conglomerate
(iv) Breccia

3. (a) What are chemical sedimentary rocks?
(b) Write short notes on the following sedimentary rocks:
(i) Chert
(ii) Coal
(iii) Chalk
(iv) Coquina

4. (a) What are sedimentary structures?
(b) Discuss the following sedimentary structures:
(i) Cross-bedding
(ii) Ripple marks
(iii) Graded bedding
(iv) Mud cracks
5. (a) Define weathering.
(b) Explain four processes that cause mechanical weathering of rocks.
(c) List the products of weathering in order of decreasing size.
6. (a) What is rock texture?
(b) Explain the following:
(i) Aphanitic texture (ii) Phaneritic texture (iii) Porphyritic texture
(c) What do the terms felsic, mafic, ultramafic, and intermediate mean?