

**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF PHYSICAL SCIENCES
DEPARTMENT OF GEOLOGY**

**FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BTech GEOLOGY
2017/2018 SESSION**

COURSE CODE: GEL 414

UNIT: 3

COURSE TITLE: GEOLOGY OF NIGERIA

INSTRUCTIONS: ANSWER ONE QUESTION FROM EACH SECTION

TIME ALLOWED: 2 HOURS

DATE: 26 APRIL 2018

**SECTION A
SEDIMENTARY BASINS**

1. Give an account of the geology and stratigraphic successions of the Gongola Sub-basin of the Northern Benue Trough, Nigeria.
2. Briefly explain the geology of the Niger Delta Basin in terms of the outcropping and subsurface lithostratigraphic units.

**SECTION B
BASEMENT COMPLEX**

1. (a) Draw a generalized geological map of Nigeria showing the three main lithological units.

(b) What supporting evidence from the Minna area shows that the migmatite/gneiss are not the oldest rocks in the basement as recorded in other parts of the country.
2. (a) Summarise the mineralisation in the schist belts of Nigeria.

(b) How would you compare the mineralisation in the schist belts of Nigeria to those of other parts of Africa such as Guinea, Liberia and Sierra Leone?

(c) Give a brief classification of the Older Granites in the Minna-Kusheriki area based on the classification of scheme of Ajibade (1982).

**SECTION C
YOUNGER GRANITES**

1. What are Younger Granites?
2. Distinguish between the Older Granites and the Younger Granites using the following parameters:
 - (a) Distribution
 - (b) Rock types
 - (c) Texture
 - (d) Age