

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

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

COURSE CODE: GEL 326

UNIT: 2

COURSE TITLE: PALEOBIOLOGY

INSTRUCTIONS: ANSWER ANY THREE QUESTION

TIME ALLOWED: 2 HOURS

DATE: 11RD APRIL, 2018

- 1a. With the aids of phylogenetics trees distinguish between phyletic gradualism and punctuated equilibrium.
- b. From evolutionary standpoint, write explanatory notes on the VARIATION within species and its causes

- 2a. What is a Guide fossil? Provide attributes of a good guide fossil.
- b. Outline the contributions of paleontology to the concept of Evolution

- 3a. What is Paleoecology? Outline its limiting factors.
- b. What was the biological basis for the subdivision of geological time into eras and periods?

- 4a. Comment precisely on the following:
 - i. Pre-adaptation concept
 - ii. Peripheral isolates
 - iii. Genetic drift
- b. With the aid of a table state the major periods of mass extinction in the geologic history with particular attention on the affected biota and the causes.

- 5a. In fossilization by replacement, what are the usual or most common replacing substances? Provide relevant example for each substance
- b. Give explanatory notes on the modern view of evolution.