## FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA SCHOOL OF PHYSICAL SCIENCES DEPARTMENT OF GEOLOGY SECOND SEMESTER 2015/2016 CA TEST

COURSE TITLE: PALEOBIOLOGY COURSECODE: GEL326

TIME: 1 Hour 15 Min. Date: 8th July, 2016

INSTRUCTION: Answer all questions

1a. What led Darwin to his ideas on the Origin of Species?

- b. How might you explain why a species of birds has evolved a larger beak size?
- c. Fossils similar to marine life found in oceans today have been found in rocks on top of mountains. How can this be explained?
- 2a. Enumerate four primary sources of information that convinced us, that species speciate.
- b. Why is the determination of a fossil specie more subjective than the determination of an extant specie?
- c. Provide 3 examples each of invertebrates groups that were exterminated at the end of Permian and Cretaceous periods
  - 3a. What are some reasons why rapid evolution may occur after periods of stability?
- b. Outline four pre-requisites for fossilization.
- 4a. How have geological events such as continental movements and the emergence of new volcanic islands influenced the history of life on earth?
  - b. What is Paleoecology? Outline its limiting factors
  - c. We do not have a complete fossil record from the beginning of life on earth. Suggest 4 reasons why?

UNIT: 2



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

M 20

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: 11<sup>RD</sup> APRIL, 2018

- / la. 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.

## SCHOOL OF PHYSICAL SCIENCES DEPARTMENT OF GEOLOGY

## SEX OND SEMESTER EXAMINATION FOR THE DEGREE OF B.TECH GEOLOGY 2015/2016 SESSION

CAN WAR COST 324 (SALEOBIOLOGY)

UNIT: 2

THE STANGER NOW

TIME ALLOWED: 2HRS.

NSTRUCTION: Answer any three questions

- in Outline the contributions of paleontology to the concept of Evolution.
  - has was the biological basis for the subdivision of geological time into eras and periods?
- Provide to example for each substance.
- to the extranatory notes on the modern view of evolution.
- where is a Guide fessio? Provide attributes of a good guide fossil.
  - A. Distinguish remeets Numerical and Cladistical taxonomies.
- and with the nids of the logenetics trees distinguis a between phyletic gradualism and managed equilibrium.
  - it. When is variation from evolutionary standpoint? What are the causes?
  - In Comment precisely on the following:
    - A Pre-alagranian concept ii. Peripheral isolates iii. Genetic drift
    - the microff at table state the major periods of mass extinction in the geologic history with puricular attention on the affected biota and the causes.