

**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 416**

**UNIT: 3**

**COURSE TITLE: MICROPALAEONTOLOGY**

**INSTRUCTIONS: ANSWER ANY FOUR QUESTIONS**

**TIME ALLOWED: 2 HOURS 30 MIN.**

**DATE: 2<sup>ND</sup> APRIL 2018**

---

1. (a) Describe the basic kinds of cysts recognised in dinoflagellates.  
(b) Provide illustrative diagram of the exine sculpture and structure of spores and pollen.
  
2. (a) Describe ten (10) different foraminifera chamber arrangements using illustrative diagrams.  
(b) Discuss the ecology of coccolithophores
  
3. Give an account of the applications of microfossils in mineral exploration.
  
4. Discuss the sample processing techniques for recovery of  
(a) Foraminifera test (H<sub>2</sub>O<sub>2</sub> method)  
(b) Calcareous nannofossils
  
5. (a) Discuss the distribution of foraminifera in the inner and outer neritic environments.  
(b) Briefly comment on the order gymnodiniales
  
6. (a) Describe the agglutinated wall structure of foraminifera  
(b) Mention the six basic kinds of aperture observed in spores and pollen