



## CRAWFORD UNIVERSITY

FAITH CITY, IGBESA, OGUN STATE  
COLLEGE OF NATURAL AND APPLIED SCIENCES  
DEPARTMENT OF PHYSICAL & EARTH SCIENCES  
GEOLOGY AND MINERAL SCIENCES

Harmattan Semester Examinations (B.Sc. Degree), 2024/2025

COURSE: GEM 441 – Advanced Micropaleontology and Palynology

UNIT: 3 Units      TIME ALLOWED: 3 Hrs.

**INSTRUCTIONS: Answer any four (4) questions.**

**(Use clearly labelled diagrams where appropriate)**

1. a. Explain the term "Palynology". (5 Marks)  
b. Describe the various fields of application of Palynology. (5 Marks)  
c. What are palynomorphs? Briefly highlight five (5) examples of palynomorphs. (5 Marks)
2. Describe the test of foraminifera vis-à-vis the following:  
a. Test Arrangement. (9 marks)  
b. Test Composition. (6 marks)
3. a. Describe in detail, the characteristics of Calcareous Nannofossils (10 marks)  
b. Explain the advantages and disadvantages of the application of Calcareous Nannofossils in geological studies. (5 marks)
4. a. Explain the differences between spores and pollen grains. (6 Marks)  
b. Describe spore morphology. (9 Marks)
5. Describe the morphological characteristics of a fossilized Pollen. (15 Marks)
6. Discuss the various stages involved in the;  
a. Preparation stage of sediment/sedimentary rock samples for a pollen and spore analysis and (9 Marks)  
b. The observation technique for the chosen microfossil (6 Marks)