



**CRAWFORD UNIVERSITY
FAITH CITY, IGBESA, OGUN STATE, NIGERIA**

**COLLEGE OF NATURAL AND APPLIED SCIENCES
HARMATTAN SEMESTER EXAMINATIONS, 2021/2022 SESSION**

**B.Sc. GEOLOGY AND MINERAL SCIENCES
GEM 441- ADVANCED MICROPALAEONTOLOGY AND PALYNOLOGY UNITS: 3**

TIME ALLOWED: 3HOURS

INSTRUCTION: ANSWER ANY FOUR QUESTIONS

Illustrate your answers with large, clearly labelled diagrams where necessary

1. What are microfossils? Discuss their practical values in geological studies and their applications in the oil industry. Give 10 examples of microfossil. (15marks)
2.
 - a. Describe the test of foraminifera vis-à-vis the test arrangement and composition. (10 marks)
 - b. Classify Foraminifera based on their test composition. (5 Marks)
3.
 - a. What are Calcareous Nannofossils? (10 marks)
 - b. Explain the advantages and disadvantages of the application of Calcareous Nannofossils. (5 marks)
4.
 - a. Explain the term "Palynology" and give 6 examples of palynomorphs. (7 Marks)
 - b. Discuss the application of palynology to the following:
 - (i) Biostratigraphy and (4 Marks)
 - (ii) Paleoenvironment. (4 Marks)
5.
 - a. Explain the differences between spores and pollen grains. (3 Marks)
 - b. Discuss the pollen and spore morphology. (12 Marks)
6. Explain the various stages involved in the;
 - a. Collection of material samples for Foraminifera analysis (5 Marks)
 - b. Laboratory preparation of samples for the chosen microfossil and (5 Marks)
 - c. Observations and Interpretation . (5 Marks)