



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

**COLLEGE OF NATURAL AND APPLIED SCIENCES  
DEPARTMENT OF GEOLOGY AND MINERAL SCIENCES**

**2010/2011 RAIN SEMESTER EXAMINATIONS**

**COURSE TITLE: *SEDIMENTARY DEPOSITIONAL ENVIRONMENT***

**COURSE CODE: GEM 342**

**TIME ALLOWED: 3HRS**

***INSTRUCTION: ANSWER QUESTION 1 AND 3 OTHERS***

1. With the aid of a table, describe the sediment deposits from the environments listed below based on their lithology, sediment maturity, deposition energy, sedimentary structures in them, sand geometry and vertical sequence through their deposits.  
**(Alluvial, Braided, Meandering, Barrier Island and Glacial Environments).**
2. a. Define the Deltaic Environment  
b. Write note on fluvial delta environment.  
c. List the subenvironments under the deltaic environment and describe any 2.
3. a. What do you understand by paleocurrent analysis?  
b. In a paleoenvironmental studies of Campano-Maastrichian sediments from Anambra basin (Ajali Sandstone), the following azimuthal readings were taken on large-scale planar cross-beddings found on the formation.  
055, 071, 074, 077, 125, 164, 169, 025, 084, 089, 132, 137, 305, 035, 103, 105, 106, 144, 144, 148, 341, 345, 345, 055, 111, 111, 116, 117, 119, 155, 157, 354, 357.
  - i. Present this data in a graphical rose diagram.
  - ii. Determine the azimuth pattern and the current direction.
  - iii. State the presumed environment(s) of deposition of this sandstone.
4. Define a depositional sequence and write concise notes on the following:
  - i. Parasequences
  - ii. Sedimentary facies
  - iii. Sequence Boundary
5. a. State Walther's law  
b. Write extensively on Marine Transgression and Regression

