



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja**  
**FACULTY OF EDUCATION**  
**2025\_2 EXAMINATIONS**

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**COURSE CODE: SED421**

**CODE TITLE: CYCLES IN NATURE (BIOLOGICAL CYCLE)**

**CREDIT UNIT: 2**

**TIME ALLOWED: 2 Hours**

**INSTRUCTION: Answer questions ONE and any other Two (2) questions**

**QUESTIONS**

1a. In your view briefly explain what happens to process of photosynthesis in carbon/ carbon cycles.

1b. With a suitable example, explain the rift valley and the youthful stages recognised in the tectonic development.

1c. Enumerate and briefly explain the three major subdivisions of the databases among the numerous databases of protein-protein interactions that are generated and collected into the biological databases.

2a. Describe the implication of the Carnot cycle with the ability to produce both hot and cold temperature.

b. Vividly, explain how the Hydrological Cycle works from evaporation to run-off.

3a. Describe the processes involved in geochemical cycle from crystallization until new magma is generated.

3b. Explain the developmental part followed by element in the earth.

3c. Vividly explain warm and cold currents and where they can be found.

4a. In a tabular form write three (3) differences between Food chain and Food web.

4b. Enumerate (8) Human activities that alter the water cycle.

4c. How would you explain Sewage Treatment Works for Integrated Science student in their upcoming conference?