



NATIONAL OPEN UNIVERSITY OF NIGERIA  
91Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja  
FACULTY OF EDUCATION

2021\_1

**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

- 1 (a) As the invited guest in a seminar organized by science teachers, how would you systematically explain the linkages in a food web? **(6marks)**
- 1(b) In a tabular form, write three (3) differences between food chain and food web. **(9marks)**
- 1(c) Itemise four (4) different kinds of feeding relations in an ecosystem. **(5marks)**
- 1(d) Highlight the four (4) main stages recognized in the tectonic development **(10marks)**
- 2(a) Enumerate any Eight (8) different processes that lead to movements and phase changes in water. **(8marks)**
- 2(b) Vividly explain any six (6) different processes that lead to movements and phase changes in water. **(12marks)**
- 3(a) Highlight eight (8) human activities that alter the water cycle. **(10 marks)**
- 3(b) How would you describe sewage treatment works for Integrated Science student in their upcoming conference? **(5marks)**
- 3(c) As a science educator, vividly define entropy to your classmates who have difficulty in understanding the concept entropy. **(5marks)**
- 4(a) State the four distinct processes exhibited by Diesel cycle. **(8marks)**
- 4(b) You are invited to the science exhibition that was organized by the Integrated science student how would you explain the steps involved in the Carnot cycle when acting as a heat engine? **(12marks)**