



NATIONAL OPEN UNIVERSITY OF NIGERIA

**University Village, Nnamdi Azikwe Express Way, Plot 91,
Cadastral Zone,
Jabi, Abuja**

**Faculty of Agricultural Sciences
FIRST SEMESTER EXAMINATION: June/July**

**COURSE CODE: AFM 305
COURSE TITLE: LIMNOLOGY (2 CREDIT UNIT)
DURATION: 2 HOURS
INSTRUCTION: Answer any four (4) questions.**

Question 1

- (ai) What is a lake? (2mks)
- (aia) List the types of lakes and their characteristics (15mks)
- (b) Define the following terms (8mks)
 - (i) Biological oxygen demand
 - (ii) Chemical oxygen demand
 - (iii) Total dissolved solids
 - (iv) Total hardness

Question 2

- (a) Explain the hydrologic or water cycle (7mks)
- (b) Explain six major transport and exchange processes involved in the hydrologic cycle (18mks)

Question 3

- (ai) Define reservoir (2mks) and explain the water quality issues in reservoirs (9mks)
- (aia) Give five differences between natural and man-made lakes (5mks)
- (bi) List five water compartments on earth (5mks)
- (bii) Explain the residence time of a reservoir (4mks)

Question 4

- (ai) Define food chain in a lake (2mks). Classify the aquatic organisms in the food chain depending on the role they play in the ecosystem (8mks)
- (aii) Give three differences between aquatic and terrestrial organisms (3mks)
- (b) Describe the following organisms (12mks)
- (i) zoo plankton (ii) phytoplankton (iii) Benthos (iv) Neckton (v) Neuston (vi) Psammon

Question 5

- (ai) Define thermal stratification (2mks)