



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 318

COURSE TITLE: INTRODUCTION TO OCEANOGRAPHY (2 Units)

TIME: 2HOURS

**ANSWER ANY 4 QUESTIONS (ALL QUESTION CARRIES EQUAL
MARKS)**

1a. Apply the penetration and attenuation of sunlight in seawater and its consequence to explain the division into oceanic zones based on the reach at different depths.

1b. Compare and contrast the euphotic zone and the Aphotic zone in the Ocean.

2a. Describe biological oceanography in relation to Agriculture

2b. The major constituents of seawater are frequently referred to as conservative constituents. Why? Name five (5) of the major constituents.

3a. Critique salinity as a major property of seawater.

3b. Appraise “depth” as a factor in measurements at sea.

4a. Distinguish between wind-driven and thermohaline circulation.

4b. Explain to a casual observer, the gradual rise in sea level while relaxing at a beach front during the day.

5a. Explain features that aid the survival of marine mammals and birds in cold latitudes/regions.

5b. Compare and contrast one major characteristic of seawater and brackish water.

5c. Predation which occurs when one organism eats another organism affects the numbers of both predator and prey. Justify this statement.

6a. The Radiocarbon method of measuring primary productivity is used more frequently in most laboratories than the Oxygen production method. What is responsible for this shift and preference?

6b. What contributes mainly to the high primary productivity of coastal areas?

6c. What may be the advantage of having total estimates of productivity on scales more regional than that of the global Ocean?