



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
SEPTEMBER, 2020_1 EXAMINATIONS

COURSE CODE: ESM 326

COURSE TITLE: OCEANOGRAPHY

CREDIT: 2 Units

TIME ALLOWED: 2 Hours

Instruction: Attempt question number ONE (1) and any other THREE (3) questions. Question number one (1) carries 25 marks, while the other questions carry (15) marks each.

1a) What are currents? **(2marks)**

1b) Differentiate between Waves, Tides and Currents **(15marks)**

1c) Outline the features of the Warm Ocean Currents **(8marks)**

2a) State the raw materials of organic production in the sea **(3marks)**

2b) Based on frequency discuss the tides that can occur **(4marks)**

2c) Explain the positions of the moon and earth as it relates to the magnitude of tides **(8marks)**

3) Discuss the role of the two major players in organic production in the sea **(15 marks)**

4a) Name the main factor responsible for water stratification **(2marks)**

4b) Define the concept of ocean tides **(4marks)**

4c) Explain how the moon and the sun affect tides **(6marks)**

4d) Highlight the factors that influences the tides **(3marks)**

5a) Diagrammatically illustrate wave movement **(10marks)**

5b) Describe the features of low latitude tropical oceanic water **(5marks)**