



B.Sc. DEGREE PROGRAMME – LEVEL 5
 FINAL EXAMINATION – 2017/2018
 COURSE TITLE – AQUATIC BIOLOGY
 COURSE CODE – ZYU5300/ZLE3180/ZOE5161/ZL3180
 DURATION – TWO HOURS

DATE – 22.09.2018

TIME 1.30 pm - 3.30 pm

ANSWER ANY FOUR (4) QUESTIONS.
 WHEREEVER NECESSARY ILLUSTRATE ANSWERS WITH CLEARLY LABELLED
 DIAGRAMS.

1. a. Briefly describe the specific properties of water.
 b. Explain how each property of water helps the existence of life on earth.
2. a. What is meant by “Net Primary Productivity” and “Gross Primary Productivity”.
 b. Draw a graph to show the variation of primary productivity with depth in a tropical lentic water body.
 c. Briefly explain the factors affecting the primary productivity.
3. a. “In an estuary, bottom of the central region is covered by mud flats while sand banks are commonly found at the mouth”.
 Explain all processes involved in developing the above condition in an estuary.
 b. Describe the ecological and economical importance of the conditions stated above.
4. a. what is known as “Intertidal zone”.
 b. Briefly explain how organisms are adapted to overcome the harsh environmental conditions in the intertidal zone.
5. a. (i) Briefly describe the oceanic life zones.
 (ii) “Buoyancy is one of the key requirements to live in the pelagic zone”
 Explain, the mechanisms used by pelagic organisms to increase buoyancy.
6. Write short notes on any two (2) of the following:
 - a. Coral reefs
 - b. Bottom of the sea
 - c. Osmoregulators
 - d. Respiratory adaptations of aquatic insects