



*(Knowledge for Development)*

# **KIBABII UNIVERSITY**

## **UNIVERSITY EXAMINATIONS 2017/2018 ACADEMIC YEAR**

### **SECOND YEAR SECOND SEMESTER MAIN EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF SCIENCE BIOLOGY**

**COURSE CODE: SZL 413**

**COURSE TITLE: MARINE BIOLOGY**

**DATE: 20<sup>th</sup> December 2017**


**TIME: 11:30 – 1:30 p.m.**

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#### **INSTRUCTIONS TO CANDIDATES**

Answer Question one(1) and any other two (2) Questions. Question one is compulsory and carries 30 marks , the other Questions carry 20 marks each.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over   
KIBU observes ZERO tolerance to examination cheating

1. a) Justify the importance of studying of marine biology. (5 marks)
- b) Explain the ecological importance of inter-tidal pools in rocky shores. (2 marks)
- c) Highlight FIVE families of sea grasses. (4 marks)
- d) State FIVE differences between sea water and freshwater. (5 marks)
- e) List FIVE primary producers in marine environment. (5 marks)
- f) Define the following concepts as applied in marine biology; (4 marks)
  - i. Bioluminescence
  - ii. Water budget
  - iii. Absolute salinity
  - iv. Stenohaline
- g) Identify the osmotic problem faced by estuarine animals and briefly explain how they overcome it. (5 marks)
2. a) Describe FIVE environmental factors affecting the distribution of marine animals. (10 marks)
- b) Discuss the physiological adaptations of halophytes to their environment. (10 marks)
3. a) Describe FIVE natural challenges facing marine national parks in Kenya. (10 marks)
- b) Write an essay on the economic uses of marine algae. (10 marks)
4. a) Discuss the environmental role of sea grasses in marine habitats. (10 marks)
- b) Describe the factors influencing the origin and nature of ocean currents. (10 marks)
5. a) Write short notes on the various criteria for classification of tides. (10 marks)
- b) Discuss the possible impacts of global warming on marine biota. (10 marks)