



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY**

**SCHOOL OF BIOLOGICAL, PHYSICAL, MATHEMATICS AND ACTUARIAL  
SCIENCES**

**UNIVERSITY EXAMINATIONS FOR THE AWARD OF A DEGREE OF MASTER OF  
SCIENCE IN PLANT ECOLOGY**

**1<sup>ST</sup> YEAR 1<sup>ND</sup> SEMESTER 2023/2024 ACADEMIC YEAR**

**MAIN CAMPUS - REGULAR**

---

**COURSE CODE: SBT 818**  
**COURSE TITLE: MARINE LITTORAL COMMUNITIES**  
**EXAM VENUE: STREAM: (MSC)**  
**DATE: EXAM SESSION:**  
**TIME: 2 HOURS**

---

**Instructions:**

- 1. Answer ALL questions in Section A and Any two questions in Section B**
  - 2. Candidates are advised not to write on question paper**
  - 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**
-

**SECTION A: ANSWER ALL QUESTIONS (30 MARKS)**

1. (a) List five examples of marine littoral ecosystems. (5 marks)
- (b) Elucidate the factors that influence growth and distribution of littoral communities? (10 marks)
- (c) Discuss the adaptations of plants and animals living in mangrove ecosystems. (15 marks)

**SECTION B: ANSWER ANY TWO QUESTIONS (30 MARKS)**

2. Describe the adaptations of organisms (plants and animals) in estuarine community. (15 marks)
3. Explain how angiosperms are adapted to the marine environment. (15 marks)
4. (a) Outline the factors that determine mineral cycling in marine littoral communities (3 marks)
- (b) Describe Nitrogen cycling in the marine littoral communities and ecosystems (12 marks)
5. Discuss anthropogenic factors that lead to pollution and eutrophication of marine littoral communities. (15 marks)