



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**  
**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION**  
**ARTS WITH IT**  
**3<sup>RD</sup> YEAR 2<sup>ND</sup> SEMESTER 2019/2020 ACADEMIC YEAR**  
**MAIN CAMPUS**  
**(SPECIAL/RE-SIT EXAMINATION)**

---

**COURSE CODE: NGE 312**

**COURSE TITLE: BIOGEOGRAPHY**

**EXAM VENUE:**

**STREAM: (BED-ARTS)**

**DATE:**

**EXAM SESSION:**

**TIME: 2 HOURS**

---

**Instructions:**

- 1. Answer Question ONE (COMPULSORY) and ANY other 2 questions**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

1. a) (i) Illustrate how energy flows in an ecosystem (5 marks)  
(ii) Explain the hydrological cycle (10 marks)
- b) (i) Discuss the **abiotic** factors of the ecosystem (8 marks)  
(ii) What are autotrophs and how significant are they to human life on Earth? (7 marks)
  
2. Discuss the effects of **climate change** on the African fauna and flora (20 marks)
  
3. Discuss reasons for biodiversity loss and suggest mitigation strategies (20 marks)
  
4. Explain factors that influence the distribution of living organisms on the Earth's surface (10 marks)
  
5. a) Give FIVE reasons why Tropical Rainforests are referred to as a climax community (10 marks)
  
- b) Suggest ways of conserving Tropical Rainforests (10 marks)