

**CHUKA**



**UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF ARTS IN  
GEOGRAPHY**

**GEOG 440: ARID AND SEMI-ARID LANDS MANAGEMENT**

**STREAMS: B.A (GEOGRAPHY)**

**TIME: 2 HOURS**

**DAY/DATE: MONDAY 29/03/2021**

**11.30 A.M. – 1.30 P.M.**

**INSTRUCTIONS:**

- **Answer QUESTION ONE and ANY OTHER TWO. Sketches and diagrams may be used whenever they serve to illustrate an answer.**

1. Discuss the causes of aridity. (20 marks)
2. Discuss the challenges in ASALs in relation to the following (20 marks)
  - (i) Water
  - (ii) Soils
  - (iii) Plants
  - (iv) Animals
  - (v) Energy
3. (a) What is aridity index and how is it determined? (8 marks)  
(b) Describe the classification of arid and semi-arid areas on the basis of the aridity index. (12 marks)
4. (a) Temperature and precipitation are the key factors influencing arid climates. With the aid of diagrams, describe the three rainfall patterns that distinguish the arid climatic zones (12 marks)  
(b) Describe how the following factors influence aridity? (8 marks)
  - (i) Atmospheric humidity

(ii) Wind

5. Discuss the challenges facing arid and semi-arid areas globally and suggest possible measures for sustainable ASAL management in Kenya. (20 marks)
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