



**MACHAKOS UNIVERSITY**  
**University Examinations for 2021/2022 Academic Year**  
**SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT**  
**DEPARTMENT OF ENVIRONMENTAL STUDIES**  
**FOURTH YEAR SUPPLEMENTARY EXAMINATION FOR THE**  
**DEGREE OF BACHELOR OF ENVIRONMENTAL STUDIES**  
**(ENVIRONMENTAL RESOURCE CONSERVATION)**  
**ERC 404: COMMUNITY PARTICIPATION IN NATURAL RESOURCE**  
**MANAGEMENT**

**Date:**

**Time:**

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**Instructions: Answer question ONE and TWO other questions**

**QUESTION ONE**

- a) Highlight five principles for effective management of communal resources  
(10 marks)
- b) Describe five levels of participation that can be applied in natural resources management.  
(10 marks)
- c) Explain five constraints of community-based wildlife management in Kenya.  
(10 marks)

**QUESTION TWO**

Explain the opportunities for community participation provided by the following frameworks in the management of respective resources in Kenya.

- a) The forest conservation and management act, 2016 (10 marks)
- b) National oceans and fisheries policy, 2008 (10 marks)

**QUESTION THREE**

- a) Explain the rationale for stakeholder engagement in management of natural resources  
(10 marks)
- b) Discuss the steps you would undertake to conduct stakeholder analysis when developing a forest resource management plan  
(10 marks)

**QUESTION FOUR**

- a) Define the term 'institutional change' and explain the three costs that need to be compared when undertaking an institutional change for the management of a wetland (8 marks)
- b) Discuss the four environmental property rights regimes clearly showing the rights and duties attached to each (12 marks)

**QUESTION FIVE**

Using appropriate examples, discuss the role played by Community Based Natural Resource Management (CBNRM) in linking economic development and resource management (20 marks)

**QUESTION FIVE**

Explain the principles of Participatory Rural Appraisal and discuss how it can be used to enhance community participation in management of natural resources (20 marks)