



MACHAKOS UNIVERSITY

University Examinations For 2018/2019 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL STUDIES (RESOURCE CONSERVATION)

ENS 454: MINING AND SUSTAINABLE DEVELOPMENT

DATE: 2/5/2019

TIME: 11:00 – 1:00 PM

INSTRUCTIONS: Answer question ONE and TWO other questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain the importance of mining in the realization of sustainable development goals of a country (10 marks)
- b) Briefly discuss any **FIVE** strategies to protect water resources from the adverse impacts of mining operations (10 marks)
- c) Explain FIVE ways in which a community can participate in the rehabilitation and utilization of mined areas (10 marks)

QUESTION TWO (20 MARKS)

Discuss the criteria to use in developing a monitoring programme for controlling the adverse impacts associated with mining activities in an area

QUESTION THREE (20 MARKS)

Suppose you have been appointed to oversee the formulation of a mining policy for your County, explain how you would develop such a policy and highlight the challenges you are likely to face

QUESTION FOUR (20 MARKS)

Using an example of a mining project, discuss the adverse environmental impacts of Acid Mine Drainage and explain how to appropriately deal with the impacts

QUESTION FIVE (20 MARKS)

Discuss the occupational safety and health challenges associated with mining and explain how to deal with the challenges