



MACHAKOS UNIVERSITY

University Examinations for 2017/2018

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL STUDIES AND COMMUNITY
DEVELOPMENT

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR OF
ENVIRONMENTAL STUDIES (RESOURCE CONSERVATION)

ENS 454: MINING AND SUSTAINABLE DEVELOPMENT

DATE: 11/12/2017

TIME: 11.00-1.00 PM

INSTRUCTIONS:

Answer Question One and Any Two Questions

1.
 - a) Distinguish between mining and quarrying (4 marks)
 - b) With an illustration, describe the phases of a mining project (10 marks)
 - c) State the objectives of establishing a monitoring programme in mining site (5 marks)
 - d) Describe the classification of geological mineral resources in Kenya (5 marks)
 - e) Explain six techniques for rehabilitation of active and abandoned mining sites (6 marks)
2. Explain the impacts of mining on the health and safety and suggest appropriate mitigation measures (20 marks)
3. Explain basic factors to be considered in selecting the site for a main production shaft in underground mining and give the advantages and disadvantages of underground mining (20 marks)
4. Explain sustainable mining practices according to an holistic model (20 marks)
5. Explain the institutional framework in the mining industry and their specific roles as per mining and mineral policy, 2016 (20 marks)