



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

**FIRST YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR
BACHELOR OF ENVIRONMENTAL STUDIES (RESOURCE CONSERVATION
MANAGEMENT)**

EPM 111: PRINCIPLES OF ENVIRONMENTAL MANAGEMENT AND PLANNING

DATE: 26/9/2019

TIME: 2.00-4.00 PM

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Explain the meaning of the following terms (10 marks)
 - i. Environment
 - ii. Plan
 - iii. Goal
 - iv. Management
 - v. Sustainable development
- b) Discuss four Global environmental problems that have a direct effect on Kenya. (10 marks)
- c) Explain five key outcomes of the Brunt land commission (1985). (10 marks)

QUESTION TWO (20 MARKS)

Distinguish between Environmental Impact Assessment and Environmental Action Planning.

QUESTION THREE (20 MARKS)

Between 2016 and 2017, a pipeline transporting oil from Mombasa to Nairobi leaked and contaminated River Thange in Kibwezi central sub county of Makueni County. Other details are provided hereunder (i) the pipeline was operated by the Kenya Pipeline Company (KPC) (ii) River Thange is the sole source of fresh water for the residents of Kibwezi central sub county:

- a) Enumerate any five impacts of the leakage on the socio-economic environment of Kibwezi central (10 marks)
- b) With examples, discuss the key principles of environmental planning and management which should have been applied to address the impacts. (10 marks)

QUESTION FOUR (20 MARKS)

- a) Describe the types of environmental audits that could be undertaken on development projects in Kenya. (10 marks)
- b) Outline key benefits of regular project environmental audits. (10 marks)

QUESTION 5 (20 MARKS)

To achieve sustainable development in Kenya, environmental management must be based on sound principles. Discuss five (5) principles of environmental planning and management showing their relevance to the unique environmental problems facing Kenya.