



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF SPATIAL PLANNING & NATURAL RESOURCE MANAGEMENT

UNIVERSITY EXAMINATIONS 2022/2023

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF SPATIAL PLANNING AND DESIGN AND BSC WATER RESOURCES
MANAGEMENT,

PNB 1401: ENVIRONMENTAL IMPACT ASSESSMENT AND AUDITING

Date: December 2022

Time: 2 hours

INSTRUCTIONS:

- This paper has **five** questions
- Answer question **1**(Compulsory) and **any two** other questions
- Write all answers in the answer booklet provided

Q1. (a) Environmental Management and Coordination Act (EMCA) 1999 in Kenya provides for enforcement of Environmental Impact Assessment (EIA) and Environmental Auditing (EA) for all development activities. Why should developing countries such as Kenya care about EIA?

[8Mks]

(b) Kenya has implemented and is currently implementing major development projects such as: **Building oil processing plants, Lapset, Lamu Harbour expansion and Standard Gauge Railway** in Kenya. Assume that you were the Environmental Impact Assessment **Team Leader** in **ONE** of them and answer the following questions

- i. Give a list of likely environmental parameters to be investigated for possible impacts. [5Mks]
- ii. How would you communicate the findings of the EIA study? [10Mks]
- iii. What do you understand by environmental management plan and why is it an important part of the EIA process? [5Mks]

Q2. Explain the importance of the following in the EIA processes.

(a) Understanding the Project [4Mks]

(b) Screening [4Mks]

(c) Determining significance of Impacts [4Mks]

Q3) Discuss the Application, Merits and Demerits of any **TWO** named EIA methodologies/techniques (tools) stating clearly the stage(s) where it is most useful

[10Mks for Each tool]

Q4. a) Explain the difference between the concepts of Mitigation and Monitoring. [4Mks]

(b) Environmental Impacts cannot be described in one word. Describe at least **Five** characteristics of Environmental Impacts. [10Mks]

c) Using examples explain why mitigation and monitoring measures implemented at design stage are the most preferred. [6Mks]

Q5. Explain in detail the institutional arrangement for EIA in Kenya, clearly outlining its strengths and weaknesses. How can the weaknesses be corrected? [20Mks]