



# MASENO UNIVERSITY

## UNIVERSITY EXAMINATIONS 2017/2018

### FOURTH YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE WITH INFORMATION TECHNOLOGY

#### MAIN CAMPUS

#### NES 410: ENVIRONMENTAL IMPACT ASSESSMENT

Date: 13<sup>th</sup> February, 2018

Time: 12.00 - 3.00pm

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#### **INSTRUCTIONS:**

- Answer Question ONE and any other TWO.
- Illustrate your answers with suitable diagrams where necessary
- Each quest must be answered on a new page
- Must write legibly



Q1. An investor plans to put up a paper manufacturing plant for the local and external markets. The paper manufacturing plant is proposed for Mamboleo in Kisumu County. In view of the socio-economic and bio-physical environmental implications that may result due to the proposed project, there has been public debate particularly on the loss of biodiversity and competition for scarce water resources in the region.

Your consultancy firm has won a contract to undertake Environmental Impact Assessment (EIA) study on this proposed project.

- a) Describe the logical steps in the EIA process that your firm is likely to follow in order to achieve the task assigned to you. Justify the formation of the multidisciplinary team for the EIA study. [15 marks]
- b) Outline key stakeholders who will participate in the EIA study process?  
[6 marks]
- c) State at least five issues which should form the scope of the EIA study.  
[5 marks]

d) Outline four factors that you may consider in order to determine the significance of environmental impacts of the proposed project. [4 marks]

Q2. The EIA process has been criticized for lack of effective involvement of local people. Outline the challenges associated with the involvement of the local people and potential strategies to overcome the challenges.

[20 Marks]

Q3. With reference to suitable illustration, explain what you understand by the following typology of environmental impacts of a development project:

- a) Direct Impacts. [3marks]
- b) Indirect Impacts. [3marks]
- c) Cumulative Impacts. [4 marks]
- d) Significance of Impacts. [10 marks]

Q4. Discuss the purpose of and the general approach to the development of Environmental Management Plan (EMP). [20 Marks]

Q5. Describe the functions of Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA), indicating their entry points in the Project Cycle. [20 marks]