



# MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

SECOND YEAR SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL STUDIES AND COMMUNITY DEVELOPMENT

BACHELOR OF ENVIRONMENTAL RESOURCE CONSERVATION

ENS 237: HUMAN POPULATION AND ENVIRONMENT

**DATE: 27/9/2019**

**TIME: 2:00- 4:00 PM**

**INSTRUCTIONS: Answer question ONE and any other TWO**

## QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Discuss the impacts of technological applications by humans on the environment (12 marks)
- b) Distinguish between the terms “Population” and “Sample” as applied in human population studies. (4 marks)
- c) Discuss four types of random sampling methods that can be used to study Kenyan human populations. (8marks)
- d) Explain why human birth rate is an issue of concern for the Kenyan Government. (6 marks)

## QUESTION TWO (20 MARKS)

- a) Explain the differences between logistic and exponential population growth models. (10 marks)
- b) Using illustrations, discuss three types of population pyramids. (10 marks)

## QUESTION THREE (20 MARKS)

- a) Explain four types of human population planning goals that are implemented by governments around the world. (8 marks)

b) Discuss six theories that can be used to explain human population migration. (12 marks)

**QUESTION FOUR (20 MARKS)**

Discuss the differences between density-dependent and density-independent factors that influence population dynamics. (20 marks)

**QUESTION FIVE (20 MARKS)**

Explain the effect of meat production by humans on the environment. (20 marks)