



# MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)

University Examinations 2015/2016

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL STUDIES

SECOND SEMESTER EXAMINATION FOR DEGREE IN BACHELOR OF SCIENCE

ENVIRONMENTAL STUDIES

ENS 237: HUMAN POPULATION AND ENVIRONMENT

Date: 25/4/2016

Time: 8:30 – 10:30 AM

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## INSTRUCTIONS

*This paper consists of FIVE questions*

*Answer question one and other two questions in this paper*

1. a) Define the following terms:
    - i. Demography (2 marks)
    - ii. Mortality rate (2 marks)
    - iii. Age Specific Birth Rate (2 marks)
    - iv. Ecosystem (2 marks)
    - v. Biogeochemical cycles (2 marks)
  - b) By use of a relevant diagram, describe how energy flows in an ecosystem (10 marks)
  - c) Discuss any 5 anthropogenic activities that impact adversely on nutrient cycling. (10 marks)
2. Natural environment provides systems that support life on planet earth. Discuss any four environmental life supporting systems. (20 marks)

- 3 a) Explain any five Harmful environmental activities associated with agriculture (10 marks)
- b) Discuss any five approaches that can be used to solve environmental problems caused by agricultural activities (10 marks)
4. a) Differentiate the term “community” from “carrying capacity” (5 marks)
- b) Discuss any five environmental issues caused by urbanization (15 marks)
5. a) Discuss the terms **Migration** and **Emigration** and explain their impact on population distribution in a country (10 marks)
- b) Using the data provided below, compute the following measures of fertility
- c) Age Specific Birth Rate (5 marks)
- d) Total Fertility Rate (5 marks)

Age	No. of Women	Live Births
15-19	12,990	348
20-24	12,824	1284
25-29	11,940	1181
30-34	11,639	620
35-39	11,639	282
40-44	11,557	78
45-49	12,099	5