



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 OF BACHELOR OF SCIENCE
IN ENVIRONMENTAL STUDIES (COMMUNITY DEVELOPMENT)

ECD 205: PRINCIPLES OF INTEGRATED WATERSHED MANAGEMENT

Date: 18/4/2016

Time: 8:30 – 10:30 AM

INSTRUCTIONS

This paper consists of FIVE questions

Answer question one and other two questions in this paper

QUESTION ONE.

- a) Explain the meaning of the following terms
- i. Watershed (3 marks)
 - ii. Ecosystem Services (3 marks)
 - iii. Watershed management (3 marks)
 - iv. Stakeholder analysis (3 marks)
 - v. Stream order (3 marks)
- b) Watershed management is continuous and needs a multidisciplinary approach. Explain. (5 marks)
- c) Outline the typical steps in a watershed management cycle (10 marks)

QUESTION TWO

Citing specific examples, discuss the impacts of land use activities on water resources in a watershed of your choice. (20 marks)

QUESTION THREE

Using examples, explain four categories of ecosystem services in a specific watershed in Kenya. (20 marks)

QUESTION FOUR

Explain four principles of integrated watershed management (20 marks)

QUESTION FIVE

- a) Explain five differences between participatory and collaborative watershed management. (10 marks)
- b) Explain four possible adaptation measures to climate change in watersheds (10 marks)