



MACHAKOS UNIVERSITY

University Examinations for 2016/2017

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL STUDIES

SECOND YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR OF ENVIRONMENTAL STUDIES (COMMUNITY DEVELOPMENT)

ECD 205: PRINCIPLES OF INTEGRATED WATERSHED MANAGEMENT

Date: 30/11/2016

Time: 2 Hours

INSTRUCTIONS:

Answer ALL Questions in section A and ANY TWO questions in section B

SECTION A: 30 MARKS

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain the meaning of the following terms
- i) Watershed (2 marks)
 - ii) Ecosystem Services (2 marks)
 - iii) Integrated Watershed management (2 marks)
 - iv) Stakeholder (2 marks)
 - v) Drainage divide (2 marks)
- b) Explain three reasons why management of watersheds is important in Kenya. (6 marks)
- c) Explain seven principles of watershed management. (14 marks)

SECTION B: 40 MARKS

QUESTION TWO (20 MARKS)

Discuss how stakeholder analysis can be done and why it is important in watershed management in Kenya. (20 marks)

QUESTION THREE

Discuss four impacts of anthropogenic activities on water resources in a watershed of your choice. (20 marks)

QUESTION FOUR

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

QUESTION FIVE

- a) Explain five differences between participatory and collaborative watershed management (10 marks)
- b) Explain five possible measures that can be used to adapt climate change in watersheds (10 marks)