



MACHAKOS UNIVERSITY

University Examination 2019/2020

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

FIFTH YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

ECV 505: ENVIRONMENTAL ENGINEERING

DATE: 11/12/2019

TIME: 2.00-4.00 PM

INSTRUCTIONS

Answer question one and any other two questions

Reasonable assumptions should be made where necessary

QUESTION ONE (30 MARKS)

Describe six future strategies and actions, which must be done to halt/stop and reverse environmental degradation in Kenya

QUESTION TWO (20 MARKS)

- a) Describe Four ecological importance of wetland ecosystems (10 marks)
- b) Discuss Three most appropriate measures to be undertaken for climate change prevention, mitigation and adaptation in Kenya (10 marks)

QUESTION THREE (20 MARKS)

- a) Discuss Four tools used in environmental assessment (10 marks)
- b) Describe three types of mitigation measures and indicate how each works (10 marks)

QUESTION FOUR (20 MARKS)

- a) Define freshwater contamination and discuss three sources of freshwater contamination (10 marks)
- b) Natural hazards can be geological or meteorological and it is essential to know how they affect our environment. Name two meteorological events and discuss their impact on economic development of the country. (10 marks)

QUESTION FIVE (20 MARKS)

- a) Define air pollution and identify its sources. What is the effect of pollution on human wellbeing? (10 marks)

- b) Describe Three benefits achieved through proper conservation of the five water towers in Kenya (10 marks)