



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER EXAMINATIONS

FOR THE DEGREE

OF

BACHELOR OF SCIENCE IN RENEWABLE ENERGY AND BIOFUELS

COURSE CODE: RET 382

COURSE TITLE: ENVIRONMENTAL MANAGEMENT

DATE: 21-04-2022

TIME: 12:00-14:00

INSTRUCTIONS TO CANDIDATES

Answer question **ONE (1)** and any other **TWO** questions

MMUST observes **ZERO** tolerance to examination cheating

Question ONE

- (a) Two main ways of controlling pollution are input control and output control. Explain (4 Marks)
- (b) Define (i) Strategic Environmental Assessment (2 Marks)
(ii) Scoping (2 Marks)
(iii) Screening (2 Marks)
- (c) Explain the causes and effects of increased amount of carbon dioxide around the Earth (4 Marks)
- (d) Explain the main factors that are considered during analysis of 'magnitude' of environmental impact of a proposed solar energy installation (8 Marks)
- (e) Explain the Polluter pays principle (4 Marks)
- (f) (i) Explain the term Biotic potential (4 Marks)
(ii) What factors determine Biotic potential of a place ? (4 Marks)

Question TWO

About 2% of Kenya's land area is covered by forests which produce about 45% of the biomass energy resources including wood wastes. Explain the measures used in protection of forests in Kenya (20 Marks)

Question THREE

You have been appointed to lead a team in setting up an Environmental Management System for an energy training institution. Explain the steps you would take including the requirements to be checked within the organization.

Question FOUR

- (a) Discuss the role of energy and petroleum authority in energy efficiency and conservation in Kenya (12 Marks)
- (b) Explain the legal measures that aim at promotion of renewable energy resources in Kenya (8 Marks)

Question FIVE

- (a) Explain the significance of the resource planning to energy managers (6 Marks)
- (b) Discuss the merits accrued by Biofuel resources during their development (9 Marks)
- (c) Explain the challenges experienced in the development of Power alcohol plant in Kenya (5 Marks)