



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2019/2020 ACADEMIC YEAR

FOURTH YEAR SECOND SEMESTER

MAIN EXAMINATION

FOR THE DEGREE OF BACHELOR OF EDUCATION SCIENCE

COURSE CODE: **ESM 412**

COURSE TITLE: EDUCATION FOR SUSTAINABLE DEVELOPMENT

DATE: 09-11-2020

TIME: 9:00AM-11:00AM

INSTRUCTIONS TO CANDIDATES

Answer Question One and any other TWO Questions

TIME: 2 Hours

This Paper Consists of 3 Printed Pages. Please Turn Over. ►

QUESTION ONE (30 MARKS)

- a) What do you understand by the following terms?
- i. Sustainable development (2 Marks)
 - ii. Education for Sustainable Development (ESD)? (3 Marks)
- a) List the **four** thrusts (pillars) of Education for Sustainable Development (4 Marks):
- b) List any **five** principles of sustainable development (5 Marks)
- c) What is the objective of the Earth's Charter? (2 Marks)
- d) List the **four** pillars of the Earth Charter (4 Marks)
- e) Outline the **four** components of an education re-oriented to address sustainability (4 Marks)
- f) State any **two** themes in the science education curriculum which you can use and adapt to develop the following in Kenya
- i) Environmental sustainability (2 Marks)
 - ii) Economic sustainability (2 Marks)
 - iii) Social sustainability (2 Marks)

QUESTION TWO (20 MARKS)

Discuss how education relates to the following Sustainable Development Goals.

- i. Poverty eradication (4 marks)
- ii. Food security (4 marks)
- iii. Provision of education (4 marks)
- iv. Gender equality (4 marks)

QUESTION THREE (20 MARKS)

Discuss the global response to sustainability issues with a focus to each pillar of the Earth's Charter

QUESTION FOUR (20 MARKS)

- a). What **four** learning tasks would you engage your science students in that would promote the following skills;
- i) Creativity and innovation (4 Marks)
 - ii) Problem solving (4 Marks)
 - iii) Communication and collaboration (4 Marks)
 - iv) Creativity and innovation (4 Marks)

- b) Discuss the role of indigenous knowledge to human welfare and development
(8 Marks)

QUESTION FIVE (20 MARKS)

Discuss **five** key challenges to the provision of Education for Sustainable Development.