



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF EDUCATION, HUMANITIES AND SOCIAL SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF MASTER OF EDUCATION
(CURRICULUM STUDIES)

1ST YEAR 1ST SEMESTER 2022/2023 ACADEMIC YEAR

REGULAR PROGRAMME

MAIN CAMPUS

COURSE CODE: ECT 828

COURSE TITLE: DEVELOPMENT OF EXPERTISE IN SCIENCE TEACHING

DATE: 22/12/2022

SESSION: 3.00-6.00PM

TIME 3HOURS

INSTRUCTIONS

1. Answer any THREE questions.
2. Candidates are advised not to write on the question paper.
3. Candidates must hand in their answer booklets to the invigilator while in the examination room

QUESTION ONE

- a. Discuss the sources of teachers' beliefs about the nature of science (10 marks)
- b. Explain how the teachers' beliefs about the nature of science can affect their teaching of science (10 marks)

QUESTION TWO

- a. Distinguish between in-service and pre-service teacher education. (6 marks)
- b. Justify why in-service teacher education is necessary (14 marks)

QUESTION THREE

- a. Identify a concept in Kenya's secondary school Biology and discuss how it can be taught so as to address multiple intelligence. (10 marks)
- b. Describe the qualities of a person whom you would consider to be an effective science teacher (10 marks)

QUESTION FOUR

- a. What do you understand by teacher professional development and why is it important to the teaching and learning process? (8 marks)
- b. Explain how teacher professional development for Biology teachers is practiced in Kenyan secondary schools and suggest how it can be improved. (12 marks)

QUESTION FIVE

Discuss how computers and internet can be applied in teacher professional development. (20 marks)