



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF EDUCATION
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION
SPECIAL SEMESTER Examinations 2019/2020 ACADEMIC YEAR
EXAM
MAIN CAMPUS

COURSE CODE: ECT 335

COURSE TITLE: SPECIAL METHODS OF TEACHING PHYSICS

EXAM VENUE:

STREAM: B. ED. SCIENCE

DATE:

EXAM SESSION:

TIME: 2 HOURS

INSTRUCTIONS

1. Answer Question ONE (COMPULSORY) and ANY other TWO 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 science under the following structures
 - i. Syntactical (3marks)
 - ii. Substantive (3marks)
- b. Outline how to teach an abstract topic in the Physics syllabus at secondary school (6marks)
- c. Discuss the requisites for effective demonstration in Physics laboratory (6marks)
- d. Discuss the merits of improvisation of learning and teaching resources in the Physics curriculum (6marks)
- e. Outline the rationale of lesson planning in Physics (6marks)

QUESTION TWO

- a. Discuss design and construction of Physics laboratory in a secondary school (6marks)
- b. Discuss the components of a Physics scheme of work used in Kenya secondary schools (7marks)
- c. Discuss why it's important to evaluate and assess Physics learners in secondary schools (7marks)

QUESTION THREE

- a. Discuss the merits for giving Physics assignments to learners (6marks)
- b. Discuss the role of information communication technology (ICT) in teaching and learning of Physics at secondary school (6marks)
- c. Develop a forty (40) minutes lesson plan for teaching a Physics sub-topic "Types of forces" at form one (1) at secondary school (8marks)

QUESTION FOUR

- a. Discuss the constructive classroom management (6marks)
- b. Develop a forty (40) minutes lesson plan for introducing a Physics sub-topic "Fluid Flow" at form two (2) at secondary school (7marks)
- c. Compare the traditional method and modern method of teaching Physics (7marks)

QUESTION FIVE

- a. Discuss how teachers can in-calculate positive attitudes towards Physics subject among form two learners at secondary school (6marks)
- b. Discuss six characteristics of science (6marks)
- c. Discuss the term pedagogy in relation to Physics teacher training (8marks)