



MACHAKOS UNIVERSITY

University Examinations 2016/2017

SCHOOL OF EDUCATION

DEPARTMENT OF COMMUNICATION TECHNOLOGY

SECOND YEAR SECOND EXAMINATION FOR DIPLOMA IN EDUCATION

ECT 0205: SUBJECT METHODS IN PHYSICS

Date: 6/6/2017

Time: 2:00 – 4:00 PM

INSTRUCTIONS

Answer Question One and Any Other Two Questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Learning of school physics assists learners in their making adjustments necessary for their everyday life. Describe four ways in which this is attained. (4 marks)
- b) Discuss five instances when teacher demonstration would be the most appropriate method for teaching physics. (5 marks)
- c) With appropriate examples, describe four main areas in which physics has provided great contributions to the society. (8 marks)
- d) Describe five ways in which discussion method should be organized in order to attain the objectives of a physics lesson. (5 marks)
- e) Give four advantages of giving short answer questions over essay questions in physics. (4 marks)
- f) Discuss five limitations of using practical work in the teaching of physics. (4 marks)

QUESTION TWO (20 MARKS)

- a) Describe five instructional functions of question answer method in the teaching of physics. (5 marks)
- b) Describe the organizational stages of a practical lesson in physics. (10 marks)
- c) Discuss the limitations of lecture as a method of teaching physics (5 marks)

QUESTION THREE (20 MARKS)

- a) Explain the importance of developing instructional objectives for the teaching of physics. (10 marks)
- b) Describe with examples five ways in which a teacher can sustain classroom attention during the teaching of physics. (10 marks)

QUESTION FOUR (20 MARKS)

- a) Discuss six advantages of improvising materials for teaching physics. (10 marks)
- b) Describe the basic characteristics of an appropriate chart for teaching a physics lesson (10 marks)

QUESTION FIVE (20 MARKS)

- a) Assume you are to teach the topic “Magnetism”. Discuss the steps you would follow in planning and implementing a teacher demonstration on this topic (10 marks)
- b) Write a lesson plan for the lesson. (10 marks)