



**KENYATTA UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2009/2010**  
**INSTITUTIONAL BASED PROGRAMME (APRIL SESSION)**  
**EXAMINATION FOR THE DEGREE OF MASTER OF EDUCATION**  
**ECT 528: STRATEGIES FOR COURSE DEVELOPMENT, ANALYSIS AND**  
**ASSESSMENT IN PHYSICS**

**DATE:** Friday 3<sup>rd</sup> September, 2010      **TIME:** 9.00 a.m – 12.00 p.m

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**INSTRUCTIONS**

Answer question 1 and any other 2 questions

**Question 1 (30 Marks)**

- a) Teachers and learners consider some topics in the high school physics course as being difficult. Analyze and justify the reasons that:
  - i) Make teachers to consider such topics as difficult to teach;
  - ii) Teachers contribute to the difficulty experienced by the learners in learning such topics;
  - iii) Make learners consider such topics as difficult to learn.
- b) Account for the gender disparity in enrolment and achievement in the high school physics course in Kenya.

**Question 2 (20Marks)**

- a) Discuss the basic science process skills that the high school physics course aims to achieve.
- b) Outline how to assess learner's acquisition of such process skills

**Question 3 (20 Marks)**

- a) Explain why it is necessary to develop a scheme of work and lesson plans in the teaching of physics.
- b) Select a concept from the high school physics and develop a plan for a 40 minutes lesson that is learner-centered.

**Question 4 (20 Marks)**

- a) What does improvisation entail and what is its importance?
- b) Outline how to improvise a Ripple Tank, and explain how to use it in teaching of waves.

**Question 5 (20 Marks)**

- a) Compare episode memory and semantic memory, and give examples of high school physics concepts that illustrate each of the cases.
- b) Discuss using examples the significance of the following statement in the teaching of high school physics in Kenya.

*‘If there is too much to hold, there is not enough space for processing, if a lot of processing is required, we cannot store much’*