



# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

**A. M. E. C. E. A**

P.O. Box 62157  
00200 Nairobi - KENYA  
Telephone: 891601-6  
Fax: 254-20-891084  
E-mail: academics@cuea.edu

**MAIN EXAMINATION**

**MAY – JULY 2018 TRIMESTER**

**FACULTY OF EDUCATION**

**DEPARTMENT OF UNDERGRADUATE STUDIES IN EDUCATION**

**PART TIME PROGRAMME**

**ED 315: SUBJECT METHODS PHYSICS**

**Date: JULY 2018**

**Duration: 3 Hours**

**INSTRUCTIONS: Answer Question ONE and any other THREE Questions**

- Q1. a) Explain the importance of history of physics to the teaching learning process **(5marks)**
- b) Highlight five characteristics of a good Physics teacher **(5Marks)**
- c) Explain how integration of ICT in physics education can improve conceptualization. **(7marks)**
- d) Using a form 1 topic of your choice, construct a 1 week schemes of work with but not limited to the following;
- a class demonstration
  - Practical work
  - Assignments which require comprehension/ knowledge /synthesis skills **(8marks)**
- Q2. Using a physics topic of your choice discuss with justifications how you would select materials, teaching methods and evaluation/testing. **(15marks)**
- Q3. a) Compare and contrast the two types of laboratory layouts. **(8Marks)**
- b) Highlight the roles of both a physics teacher and Laboratory technician during a physics practical lesson **(7marks)**

- Q4. a) Discuss any four features of a good physics Examination Paper. Use a topic to set a CAT of 15 marks that highlights the above points. **(8Marks)**
- b) Explain, with clear topical examples, how you would deal with misconceptions in physics **(7Marks)**
- Q5. a) Explain how a physics teacher may use tests to improve the performance of learners **(9marks)**
- b) Discuss how a practical/ experiment, enhances conceptualization. Use a case topic of your choice to demonstrate this.
- Q6. a) 'Physics is a Science'. Discuss this statement for or against giving reasons. **(9marks)**
- b) Write a 40 minute lesson plan on any physics topic of your choice **(6marks)**

**\*END\***