

MACHAKOS UNIVERSITY 2019 EXAMINATIONS

ECT306: TEACHING METHODS-PHYSICS (SUPPLEMENTARY).

Answer Question one and any two others.

- Q1. (A) Write a **brief five-point text** that would convince a Form One that Physics is important in everyday life. (10 marks).
- (B) With reference to a practical on refraction through a converging lens, explain the following aspects:
- (i) **Three (3)** objectives in the psychomotor domain. (6 marks).
 - (ii) **One (1)** objective in the cognitive domain. (2 marks).
- (C) Prepare an 80 minute Lesson Plan to actualise the above practical activity.
(12 marks)
- Q2. (a) Describe the steps you would use to help learners **determine the Refractive Index of a Glass block**. (10 marks).
- (b) Outline the procedure you would use to teach **How to interpret the graph of (u v) versus (u + v) for a given lens**. (10 marks).
- Q3. Explain and illustrate the following steps involved in the teaching of Physics through the **learning -cycle approach**:
- (i) Exploration. (8 marks).
 - (ii) Elaboration. (6 marks).
 - (iii) Application. (6 marks).
- Q4. Explain and illustrate the key steps in the efficient planning for a balanced Physics Test. (20 marks).
- Q5. Write a brief essay **on one of the following topics**: (20 marks).
- (i) Physics and Engineering Technology.
 - (ii) The value of Project Work in the teaching of Physics.
 - (iii) Physics and Medicine.
 - (iv) Physics and Energy generation.