



**ALUPE UNIVERSITY  
OFFICE OF THE DEPUTY VICE CHANCELLOR  
ACADEMICS, RESEARCH AND STUDENT AFFAIRS**

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**UNIVERSITY EXAMINATIONS**

**2023/2024 ACADEMIC YEAR**

**FIRST YEAR SECOND SEMESTER REGULAR EXAMINATION**

**COURSE CODE: CIM 223**

**COURSE TITLE: PHYSICS EDUCATION 1**

**DATE: 22/4/2024**

**TIME: 2:00PM-5:00PM**

**INSTRUCTIONS TO CANDIDATES**

**SEE INSIDE**

**THIS PAPER CONSISTS OF TWO PRINTED PAGES. PLEASE TURN OVER.**

**REGULAR – MAIN EXAM**  
**CIM 223 PHYSICS EDUCATION 1**

**STREAM:**

**DURATION: 3 Hours**

**INSTRUCTIONS TO CANDIDATES**

I Answer Question ONE and any other TWO Questions

ii) Do not write on the question paper

**QUESTION ONE**

- a) Define the 'scientific method'. (2marks)
- b) What is the role of the 'scientific method'? (2marks)
- c) Identify SIX advantages of ICT integration in the teaching of Physics. (6 marks)
- d) Discuss any FOUR key philosophical schools of thought in science education. (8 marks)
- e) Explain the meaning of 'Science Fair' (2 marks)
- f) Explain TEN Universal characteristics of science (10 marks)

**QUESTION TWO**

- a) Jean Piaget proposed four stages of cognitive development in children.
  - i) Discuss these four stages. (8 marks)
  - ii) For each of the four stages in (i), explain how you can effectively create engaging learning experiences which promote students' scientific thinking. (8 marks)
- b) Outline four roles of science clubs in schools. (4marks)

**QUESTION THREE**

- a) Discuss FIVE roles of physics teachers in science education. (10 marks)
- b) Discuss the key trends in curriculum development in Physics Education. (10 marks)

**QUESTION FOUR**

- a) Outline EIGHT objectives of clubs and societies in secondary schools. (8 marks)
- b) Explain any SIX aspects that highlight the importance of the philosophy of science. (12 marks)

**QUESTION FIVE**

- a) What is values- based education (2marks)
- b) Illustrate with examples how you would integrate values-based education in teaching physics. (6marks)
- c) Explain EIGHT key principles of Jerome Brunner's social learning theory. (8marks)
- d) Explain Four implications of social learning theory to physics. (4marks)

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