



NATIONAL OPEN UNIVERSITY OF NIGERIAN
91 Cadastral zone, Nnamdi Azikiwe Expressway, Jabi, Abuja
SCIENCE EDUCATION DEPARTMENT
FACULTY OF EDUCATION
2025_2 EXAMINATIONS

Course code: EDU 756

Course Title: Physics Method

Credit unit: (2 units)

Time Allowed: 2 hours.

Instruction: Answer questions one (1) and any other two.

QUESTION ONE

1a. Discuss the major cognitive milestones achieved during Piaget's Sensorimotor Stage (0–2 years) and explain their significance for later cognitive development. **(8 marks)**

1b) The storage of apparatus is a serious and growing problem in most school physics laboratories. As a physics educator, educate newly employed teacher on storage of physics apparatus.

(8 marks)

1c) Lesson plan is a vital tool needed for successful teaching in the classroom. List and discuss the indices of a good physics lesson plan. **(14 marks)**

QUESTION TWO

2a. Advance four reasons for a reform in the science curriculum. **(8 marks)**

2b. Describe the Cognitive and Intellectual Developments that occur during the Concrete Operational Stage (7–11 years) and how they influence a child's approach to scientific learning.

(12 marks)

QUESTION THREE

3a. Analyze the significance of the support from the National Science Foundation (NSF) for the Harvard Project Physics and how it might have influenced the development and implementation of the course. **(12 marks)**

3b. Discuss the factors that influence the selection of teaching methods in physics and explain how each factor impacts the effectiveness of the teaching process. **(8 marks)**

QUESTION FOUR

4a) Among the foreign science curriculum projects is Chemical Education materials Study (CHEM) study. Hence, (i) list the financiers of the project; (ii) mention the dates when the project was initiated; (iii) mention the focus of the project; and (iv) list the curriculum materials produced for execution of the project. **(8 marks)**

4b. What are the key steps involved in ensuring that a science test accurately reflects the major concepts to be tested and the cognitive levels at which these concepts are assessed? **(12 marks)**

(Total = 20 marks)