NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
SCHOOL OF EDUCATION
MAY/JUNE 2012 EXAMINATION

EDU 656: Physics Methods (2 CR)
Time Allowed: 2 Hours

Instructions: Answer questions number one (1) and any other two (2) questions.

1a(i). What do you understand by the concepts 'Physics Curriculum'?
(ii). State and explain with the aid of a diagram the four components of a Physics Curriculum (10 marks)

b. Briefly discuss 'the national Science Curriculum for Senior Secondry Schools'. The discussion should cover the:

i. The need for the development of the new curriculum;
ii. What was responsible for the advent of this project;
iii. The approach adopted in teaching the concepts in the Science Curriculum;
iv. The focus of the teaching approach adopted by the project; and
v. How its contents are arranged.

(10 marks)

C(i). Explain with examples 'the resources' for teaching Physics
(ii). Outline six (6) factors you would consider, as a Physics teacher in selecting resources for teaching a topic/concept.
(10 marks)

2a. State and illustrate with examples the two broad groups of methods for teaching Physics
(10 marks)

b. Discuss five roles of Physics teacher in the Physics laboratory
(10 marks)

3a(i). Distinguish between objective type and essay type tests.

(ii). Enumerate the merits and demerits of essay type test.
(10 marks)

b(i). Write short note on 'Practical Examination in Physics' and highlight the usefulness of such examination to students.

(ii). Enumerate the criteria for preparing marking schemes for practical examination.
(10 marks)

4a(i). State the four human intellectual developmental stages identified by Jean Piaget with the approximate ages to which they correspond.

(ii) Discuss the implications of Jean Piaget's theory of learning for Science teaching and curriculum development.
(10 marks)

b. Discuss the roles of The Science Teachers Association of Nigeria (STAN) in popularizing Science teaching in Nigeria.