



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91 Cadastral Zone, Nnamdi Azikwe Express Way, Jabi, Abuja.
FACULTY OF EDUCATION
APRIL/MAY 2019_1 EXAMINATION

COURSE CODE: EDU 756

COURSE TITLE: PHYSICS METHODS

CREDIT UNIT: 2

TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER QUESTION ONE AND ANY OTHER 2

- 1(a) You have been provided with a retort stand, clamp and boss, a set of masses, a spiral spring, stop watch, split cork and other necessary apparatus. With the aid of a well labelled diagram, briefly describe the basic steps you will follow in a simple oscillatory or harmonic experiment. (15 marks)
- (b) As an instructor of physics at the secondary school level, prepare a hypothetical marking scheme of 30 marks for physics practical examination allotting your marks across the ten different sections of the physics practical questions (10 marks)
- (c) State any two usefulness of practical assessment to science students. (5 marks)

(30 marks, 50minutes)

- 2(a) Experts have argued that the most reliable method of assessing students' learning outcome is the use of test. Enumerate and explain in brief any 2 uses of test. (4 marks)
- (b) Highlight any three human intellectual developmental stages identified by Jean Piaget and indicate their corresponding ages. (6 marks)
- (c) Compare and contrast the essay and objective test types taking into consideration their description and features, two merits, two demerits and two examples in each case. You may present your answer in tabular form. (10 marks)

(20 marks, 35minutes)

- 3(a) Briefly describe the Physics Laboratory. (5 marks)
- (b) Highlight and describe three special rooms that are found in a well-designed Physics Laboratory. (9 marks)
- (c) Give a short historical account on the effort and struggle that led to the establishment of Yaba Higher College. (6 marks)

(20 marks, 35 minutes)

4. (a) In the management of Physics Laboratory, highlight the four major components that are always in dynamic interaction.(8 marks)

(b) Elucidate briefly on 3 roles of Sole Administrator in the Physics Laboratory. (6 marks)

(c) From the historical narrative on the development of science education in Nigeria and the contribution(s) of the Early Missionaries towards the commencement of science teaching, highlight three challenges that hindered their operation.(6 marks)

(20 marks, 35 minutes)