# NATIONAL OPEN UNIVERSITY OF NIGERIA
## 14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
## SCHOOL OF EDUCATION
## SEPTEMBER/OCTOBER 2015 EXAMINATION

**COURSE CODE:  EDU 740**

**COURSE TITLE: MATHEMATICS METHODS**

**TIME ALLOWED:        2 HOURS**

**INSTRUCTION:  ATTEMPT QUESTION1 AND ANY OTHER TWO**

1. With relevant illustrations, show how the following mathematical relations could be taught in the mathematics laboratory among SSI students. Show in each case, the steps to be taken. (Lesson plan is not required).

    i) Using cardboard to derive the curve surface area of a cylinder.

    ii) Using circular drawings or cardboard cuts to derive the value of π.        *(30mks).*

2. Concrete operational stage and formal operational stage are two important stages of Piaget intellectual development theory. Discuss these stages and their implications to mathematics teaching and learning. *(20marks)*
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3. a) Of what relevance is the study on history of early Greek mathematicians to you as a professional teacher of mathematics? *(8marks).*
    b) Discuss the contributions of Apollonius of Perga and Pythagoras to the development of mathematics. *(12marks).*

4. a) What is mathematics laboratory? Discuss the procedures a teacher would use in mathematics laboratory instruction?**(12 marks).**

b)What is the relevance of lesson note to classroom teaching? **(8mks).**