NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikwe Express Way, Jabi, Abuja
Faculty of Education
2020_1 Semester

COURSE CODE:	**EDU740**
COURSE TITLE:	**MATHEMATICS METHODS**
TIME ALLOWED:	**2 HOURS**
CREDIT UNITS:	**2**
INSTRUCTION:	**Attempt question 1 and any other two**

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QUESTION 1 (COMPUSORY)

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 formula for the curve surface area of a cylinder.

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

2a) Explain the concept of mathematics laboratory? Discuss the procedures a teacher would need to follow in mathematics laboratory instruction? **(12 marks).**

 b) State at least eight (8) importance of lesson note to classroom teaching? **(8mks).**

3. Concrete operational stage and formal operational stage are important stages in Piaget intellectual development theory. Explain these stages and their implications to mathematics instruction. **(20marks)**

4a) The study on history of early Greek mathematicians is important to the teaching and learning of Mathematics in schools. Of what importance is this to you as a professional teacher of mathematics? **(8marks).**

b) Apollonius of Perga and Pythagoras are early Mathematicians. What are their contributions to the development of mathematics? **(12marks).**