



**NATIONAL OPEN UNIVERSITY OF NIGERIA**

Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi, Abuja

**Department of Science Education, Faculty of Education**

**2024 1 EXAMINATION**

**Course Code: EDU 740**

**Course Title: Mathematics Methods**

**Credit Unit: 2 Units**

**Time Allowed: 2 Hours**

**Instruction: Answer Three (3) Questions: Question One (1) is Compulsory and any other Two (2).**

- 1a. List ten (10) learning aids and their uses in mathematics instruction. (15 marks)
- 1b. Identify five (5) features of a laboratory approach of teaching mathematics.  
(5 marks)
- 1c. With proper explanation, differentiate between guided discovery and open discovery. (6 marks)
- 1d. List four (4) purposes of instructional objectives in educational system.  
(4 marks)
- 2a. Discuss the activities of NERC in the development of Mathematics curriculum and textbooks in Nigeria. (8 marks)
- 2b. Classify and explain three (3) domains of instructional objectives (12 marks)
- 3a. Write short notes on the following:
  - The Dynamic Principles
  - The Constructive Principles
  - The Perceptual Variability Principles (9 marks)
- 3b. Appraise the implications of Bruner's work to teaching and learning of mathematics. (6 marks)
- 3c. Explain the concept of individual differences (5 marks)

- 4a. Explain four (4) strategies that can enhance students' positive attitude towards mathematics. (10 marks)
- 4b. State four (4) objectives of secondary mathematics curriculum in Nigeria.  
(4 marks)
- 4c. What do you understand by (i) Horizontal Curriculum and (ii) Vertical Curriculum  
(6 marks)

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