

UGANDA MARTYRS UNIVERSITY

UNIVERSITY EXAMINATIONS

FACULTY OF SCIENCE

DEPARTMENT OF MATHEMATICS

END OF SEMESTER 2, 2022/23 FINAL ASSESSMENT

MATHEMATICS EDUCATION YEAR III

MATHEMATICS TEACHING METHODS II

DATE : 24th May 2023

TIME : 2:00 PM - 5:00 PM

DURATION: 3 Hrs

Instructions

1. *Carefully read through ALL the questions before attempting.*
 2. *ANSWER FOUR (4) Questions (All questions carry equal marks).*
 3. *Question one is compulsory.*
 4. *Ensure that your Reg. number Name and Course are indicated on all pages of your work.*
 5. *Ensure that your work is clear and readable. Untidy work will be penalized.*
 6. *Any type of examination Malpractice will lead to automatic disqualification.*
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1. (a) Explain, with help of an example the following forms of assessment: Define the following types of matrices giving an example in each case.
 - (i) Internal assessment. [3 Marks]
 - (ii) External assessment. [3 Marks]
 - (b) (i) Give six reasons why you think assessment is good during the teaching-learning process. [6 Marks]
 - (ii) What factors must a teacher consider when setting an examination of mathematics to his/ her learners?. [6 Marks]
 - (c) As a mathematics teacher, why do you think it is important to maintain a good relationship with your students? [7 Marks]
2. (a) In a classroom setting, you will find different categories of students, whose needs and abilities are definitely not the same. Explain some of the ways in which a mathematics teacher can improve learners' participation in the classroom during the teaching-learning process. [7 Marks]
 - (b) (i) Explain what is meant by teaching aids during the teaching and learning of mathematics.. [3 Marks]
 - (ii) Give three examples of teaching aids of your choice, and explain how you can use them to effectively teach a topic of your choice in mathematics. [9 Marks]
 - (c) Do you think teaching aids are an important tool to be included in the teaching-learning process. Give six reasons to support your answer. [6 Marks]
3. (a) (i) What is your understanding of the term *learning environment* in mathematics education? [4 Marks]
 - (ii) What are some of the ways a mathematics teacher can create a favorable learning environment for his/ her learners? [7 Marks]
 - (b) Give five examples of ICT tools in mathematics and explain how they facilitate the learning of mathematics. [10 Marks]

- (c) Much as incorporating technology during the teaching-learning process is a good strategy, it also comes along with some disadvantages. Give any four such disadvantages. [4 Marks]
4. (a) There are key persons that must be present in a school setting for the learning and teaching of mathematics to go on smoothly. Give the duties and responsibilities of each of the following persons:
- (i) Head of mathematics department. [7 Marks]
 - (ii) Mathematics teacher. [7 Marks]
 - (ii) Management and administration. [7 Marks]
- (b) Under what circumstances can a mathematics teacher fail to effectively perform their duties? Give four such circumstances. [4 Mark]
5. (a) (i) Give three main differences between a lesson plan and a scheme of work. [6 Mark]
- (ii) Give five advantages of the scheme of work to the teacher. [5 Mark]
- (b) What are the qualities that a good lesson plan must have in order to have interesting mathematics lessons. Give only five of them and explain how they aid learning. [10 Marks]
- (c) Give four ways in which you would help a student who you think is slow at grasping mathematical concepts in class and is even shy to ask questions during classroom. [4 Mark]

End