

Uganda Martyrs University
FACULTY OF EDUCATION
END OF SEMESTER TWO EXAMINATIONS 2022/23
BACHELOR OF EDUCATION WITH SCIENCE YEAR TWO
MTH 2204 MATHEMATICS TEACHING METHODS I



24TH MAY 2023

Time: 9.30 AM – 12.30 PM (3 hours)

Instructions:

- Follow the instructions on page two of the answer booklets carefully.
- For each number write clearly the necessary steps.
- Attempt only five questions.
- Each question carries 20 marks
- Begin each selected question on a fresh /new page in the answer booklet.
- Do not write anything on this question paper.

1. Examine the factors which you think should be taken into consideration by the teacher when teaching mathematics. **20mks**
2. Discuss with practical examples, why it is important for a mathematics teacher to prepare both;
 - i. a scheme of work and **10mks**
 - ii. a lesson plan before going to class to teach. **10mks**
3. Choose any one mathematics theorist whose mathematical works strike you as an individual teacher. Describe his great works and explain with real classroom examples how you can integrate his works to enable you teach mathematics concepts effectively. **20mks**
4. Instructional materials are very important in the teaching of mathematics.
 - a) Explain any two types of instructional materials that you think can be used to bring about effective teaching and learning of mathematics in secondary schools today. **5mks**
 - b) Describe the criteria you think you would use to select any instructional material for teaching mathematics. **10mks**
 - c) Discuss any five advantages of using instructional materials during the teaching of mathematics. **5mks**
5. There is a serious alarm yearly on the performance of mathematics throughout the country and beyond.
 - a) Discuss reasons that you think are contributing to the poor mathematics performance at all levels of educations in Ugandan schools. **10mks**
 - b) As a specialist in the subject, Explain with relevant examples strategies you think you would put in place to help uplift the performance of students in mathematics in schools. **10mks**
6. Mathematics teaching and learning can be effectively enhanced by the use of recreational activities like the mathematics clinic and the mathematics club.

- a) What is the difference between the mathematics clinic and the mathematics club?
3mks
- b) Give a brief explanation of any five advantages of each of the above. **10mks**
- c) Describe how the administrative arranged of the mathematics club is implemented (include the responsibilities of each post). **7mks**
7. Mathematics cannot be taught only theoretically. Practical work plays a very big role in building the mathematics expert of today. Describe with real classroom examples any five mathematics practical activities that you as a teacher thinks can help you teach students effectively. How would you implement these activities in the teaching and learning process? (MRKS)
8. Using real classroom examples, Explain how you can use mathematics to help you as a teacher to teach the following subjects; History, Geography, Physics and Chemistry.
20mks

SUCCESS