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KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATIONS, 2022/2023 ACADEMIC YEAR
END OF SEMESTER EXAMINATIONS
FOR THE DEGREE OF BACHELOR OF EDUCATION (ARTS)
KET 2304-SUBJECT METHODS IN MATHEMATICAL STUDIES

Date: 6th December 2022

Time: 11.30am-1.30pm

INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

- (a.) Explain briefly **FOUR** limitations to the KCSE syllabus in mathematics. **(4 marks)**
- (b.) Justify the importance of a lesson plan in the teaching and learning of mathematics. **(5 marks)**
- (c.) Identify **FOUR** reasons why scheming of a mathematics lesson is important. **(4 marks)**
- (d.) Critique the use of calculators in a mathematics class. **(3 marks)**
- (e.) Differentiate between cognitive, effective and psychomotor objectives in mathematics. **(6 marks)**
- (f.) State **FOUR** major contributions of mathematics to society. **(4 marks)**
- (g.) Identify any **FOUR** teacher's activities in a mathematics lesson. **(4 marks)**

QUESTION TWO (20 MARKS)

- (a.) Citing relevant examples, explain **FOUR** motivational factors that influence behaviour in a learning environment of mathematics education in Kenya. **(8 marks)**
- (b.) Evaluate the role of testing in the teaching and learning of mathematics. **(8 marks)**
- (c.) State any **THREE** skills tested under CBC when teaching mathematics. **(6 marks)**

QUESTION THREE (20 MARKS)

- (a.) Discuss the importance of instructional materials in teaching of mathematics. **(8 marks)**
- (b.) Discuss Piaget's contribution to the teaching of mathematics. **(6 marks)**
- (c.) State three disadvantages of using Lecturing when teaching mathematics. **(6 marks)**

QUESTION FOUR (20 MARKS)

- (a.) Explain any **FOUR** factors that influence curriculum development of mathematics in high school. **(8 marks)**
- (b.) Discuss any **FOUR** Values promoted through the teaching of Mathematics. **(8 marks)**
- (c.) Evaluate the role of Kenya Institute of Curriculum Development in learning of mathematics. **(4 marks)**

QUESTION FIVE (20 MARKS)

- (a.) Describe **three** qualities of a good mathematics teacher. **(6 marks)**
- (b.) Prepare a 40 minutes lesson plan for a class in mathematics **(8 marks)**
- (c.) Identify any **THREE** ways of utilizing the chalkboard in a mathematics lesson. **(6 marks)**