



UNIVERSITY OF JOHANNESBURG
FACULTY OF EDUCATION
NOVEMBER / DECEMBER
SUPPLEMENTARY EXAMINATION 2014

PROGRAMME: B Ed Hons
MODULE: CURRENT ISSUES IN MATHEMATICS EDUCATION
CODE: CIM0027
TIME: 3 hours
MARKS: 100
EXAMINER: Dr ED Spangenberg
MODERATOR: Prof C Vermeulen (CPUT)

(This paper consists of 2 pages)

INSTRUCTIONS

Read the following instructions carefully before answering the questions:

1. This question paper consists of three questions.
2. Answer **ALL** the questions.
3. Number the answers correctly according to the numbering system used in this question paper.
4. Write legibly and present your work neatly.
5. Read the questions carefully before answering them.
6. Questions may be answered in English or Afrikaans.

QUESTION 1

Critically reflect on teaching and learning of Mathematics in multilingual classrooms.

Address the following in your answer:

- | | |
|--|-------------|
| 1.1 What is meant by multilingualism? | (3) |
| 1.2 Theories related to second language learning. | (6) |
| 1.3 Current debates on teaching and learning Mathematics in multilingual classrooms in South Africa. | (2) |
| 1.4 Issues in teaching Mathematics in multilingual classrooms. | (4) |
| 1.5 Language in Mathematics Education. | (25) |
| | (40) |

QUESTION 2

Critically reflect on the use of social media in the Mathematics classroom. Address the following in your answer and support with examples:

- | | | |
|------|--|-------------|
| 2.1 | What is meant by social media? | (3) |
| 2.2 | Digital gaming | (2) |
| 2.3 | Simulations | (2) |
| 2.4 | Social networking | (2) |
| 2.5 | Blogs | (2) |
| 2.6 | Microblogging | (2) |
| 2.7 | Wikis | (2) |
| 2.8 | Why do mathematics learners need to use social media sites? | (4) |
| 2.9 | Social media as a tool to support social constructivism | (6) |
| 2.10 | Overcoming barriers to innovation | (12) |
| 2.11 | Strategies for success in the use of social media in the Mathematics classroom | (3) |
| | | (40) |

QUESTION 3

In this module we looked at Cultural-Historical Activity Theory (CHAT) as a lens to view and interpret Mathematics teaching and learning in the classroom. Write an essay of 2 pages (± 600 words), in which you reflect on CHAT as lens. In your answer, you should refer to the contributions of, amongst others, Vygotsky and Engeström.

(20)**TOTAL: 150**

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