



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2011/2012

**IBP DECEMBER 2011 SESSION EXAMINATION FOR THE DEGREE OF
MASTER OF EDUCATION**

ECT 533: CLASSROOM CLIMATE, RESOURCES AND THE SOCIAL CONTEXT
OF MATHEMATICS LEARNING

DATE: Thursday 3rd May, 2012

TIME: 9.00 a.m. – 12.00 p.m.

INSTRUCTIONS:

Answer Three Questions including Question ONE.

1.
 - (a) Discuss the ways in which language as a social cultural factor inhibits mathematics learning. (6 marks)
 - (b) Integrating process skills is part of reforms in mathematics classrooms previously dominated by content based learning. Explain with examples how a teacher can incorporate the five mathematics learning processes to create an active learning environment. (10 marks)
 - (b) State 3 qualities of a good mathematics text book and then list and discuss four roles of a mathematics text book. (14 marks)
2.
 - (i) Many researchers argue that, consideration of the classroom with its diverse players, agendas, expectations and rituals is essential to the study of the construction of school mathematics knowledge. Describe these agendas expectations and rituals. (6 marks)
 - (ii) How can group work contribute a positive mathematics classroom? What roles would you consider for group members to ensure effective collaboration of team members? (9 marks)

3. Discuss the following statements using examples to support your arguments.
- (i) “Mathematics is not used as a selection device simply because it is useful but rather the reverse”.
 - (ii) How might you use the strategies of problem solving? De-posing, and re-posing in your own classroom to encourage participation by gender.
- (15 marks)
4. (i) Standards and norms of the society influence how children interact with each other, which in turn influence both what mathematics children learn and how they learn it. By use of examples, justify this statement. (7 marks)
- (ii) Discuss how **power** and **equity** contribute to Mathematics learning environments. (8 marks)
5. Discuss how a mathematics teacher can use resources from the environment to present the content meaningfully to the learners. Pick three concept areas of your explanation from either primary or secondary level. (15 marks)

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