



**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF DEGREE OF  
MASTER OF EDUCATION (SCIENCE)**

**EDCI 723: MATHEMATICS EDUCATION**

**STREAM: M.ED (SCIENCE) Y1**

**TIME: 3 HOURS**

**DAY/DATE: MONDAY 6/12/2010**

**8.30 A.M. – 11.30 A.M.**

---

**INSTRUCTIONS:**

Answer ALL questions.

1. Compare and construct Lakatos's quasi-empiricism, as a philosophy of mathematics and social constructivism as a philosophy of mathematics.[10 marks]
  2. Explain the salient components of mathematics education that a teacher of mathematics should learn in teacher education. [10 marks]
  3. (a) State and explain FOUR types of mathematics concepts. [4 marks]  
(b) What approaches can you suggest to teachers of mathematics in order to teach mathematical concepts to the learners advantage? [10 marks]
  4. Discuss the social learning theory and its implications to the teaching of mathematics. [8 marks]
  5. What advantages and disadvantages exist for any already prepared mathematics scheme of work? [8 marks]
  6. Indiscriminate use of mathematics teaching aids may occasionally result merely in entertainment. Discuss this statement and list at least FOUR guidelines you would advise mathematics teaching to use in selecting and using mathematical aids. [10 marks]
-

