# THE UNITED REPUBLIC OF TANZANIA NATIONAL EXAMINATION COUNCIL OF TANZANIA DIPLOMA IN SECONDARY EDUCATION EXAMINATION

762

## EDUCATIONAL RESEARCH, MEASUREMENT AND EVALUATION

Time: 3 Hours. Tuesday, 14<sup>th</sup> February 2006 a.m

#### **Instructions**

- 1. This paper consists of sections A, B and C.
- 2. Answer all questions in sections A, two (2) questions from section B and one (1) question from section C.
- 3. Question 11 is compulsory.
- 4. Section A carries 36 marks, section B carries 40 marks and section C carries 24 marks
- 5. Cellular phones and unauthorized materials are **not allowed** in the examination room.
- 6. Write your **Examination Number** on every page of your answer booklet(s).



#### **SECTION A (36 marks)**

Answer all questions in this section.

- 1. Define the term educational measurement.
- 2. Mention four characteristics of a good research problem.
- 3. State four objectives of educational evaluation.
- 4. Give four reasons for pre-testing research instruments.
- 5. List three advantages of using questionnaires in data collection.
- 6. State four importance of hypothesis in research.
- 7. Mention four principles of constructing test items.
- 8. Briefly explain four functions of the table of specifications in test construction.
- 9. Give two advantages of using median over mean in data analysis.

#### **SECTION B (40 marks)**

Answer two questions from this section. Question 11 is **compulsory**.

- 10. (a) What is validity in testing?
  - (b) State four types of validity with brief explanations.
- 11. (a) Differentiate between norm-referenced and criterion-referenced tests.
  - (b) The following are test scores for 8 students: 20, 25, 30, 35, 25, 40, 30, 20. Calculate:
    - (i) Range
    - (ii) Mean (nearest whole number)
    - (iii) Standard deviation (nearest whole number)
  - (c) Convert the highest and lowest scores to z-scores.
- 12. Outline four steps in formulating research objectives.
- 13. Discuss four advantages and four disadvantages of multiple-choice test items.

### **SECTION C (24 marks)**

Answer one question from this section.

- 14. (a) State four characteristics of reliable tests.
  - (b) Explain four methods of estimating test reliability.
- 15. Discuss the first five components of a research report.
- 16. Explain four roles of assessment in the teaching and learning process.