

**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, 08<sup>th</sup> May 2001 a.m**

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**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).

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

Answer all questions in this section.

1. Define educational measurement.
2. Mention four characteristics of a good hypothesis in educational research.
3. State four purposes of conducting educational research.
4. Give four limitations of using questionnaires as a data collection method.
5. List three reasons for conducting a literature review in a research study.
6. State four ways of improving the validity of a test.
7. Mention four factors that can influence the reliability of a test.
8. Explain four functions of assessment in the teaching and learning process.
9. Give two reasons why standard deviation is more useful than range in describing variability.

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

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

10. (a) Define predictive validity and concurrent validity.  
(b) Give four differences between the two, with examples.
11. (a) The following are Geography scores for 12 students:  
35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90.  
(i) Calculate the mean score (nearest whole number).  
(ii) Calculate the variance and standard deviation (nearest whole number).  
(iii) Using a mean of 60 and a standard deviation of 15, compute the z-scores for the highest and lowest scores.  
(iv) Interpret these z-scores in the context of student performance.  
(b) State three advantages of using standard scores in reporting results.

12. A researcher is investigating the effect of school leadership style on teacher motivation in public secondary schools.
- (a) State one general objective and three specific objectives for this study.
  - (b) Identify four possible challenges the researcher may face in collecting data and explain how each can be overcome.
13. Discuss four ways of ensuring fairness when developing and administering a national examination.

**SECTION C (24 marks)**

Answer one question from this section.

14. A national assessment shows consistent performance gaps between boys and girls in science subjects.
- (a) Suggest four possible causes of this gap.
  - (b) Propose four strategies to close the gap in future.
15. Explain four advantages and four disadvantages of using essay tests in assessing students' learning outcomes.
16. Identify and explain four ethical principles that should guide a researcher when working with vulnerable populations in education.