

THE UNITED REPUBLIC OF TANZANIA  
NATIONAL EXAMINATIONS COUNCIL  
DIPLOMA IN SECONDARY EDUCATION EXAMINATION  
EDUCATIONAL RESEARCH, MEASUREMENT AND  
EVALUATION

Tuesday, 05<sup>th</sup> May 2015 a.m.

Time: 3 Hours

**Instructions**

1. This paper consists of sections A and B.
2. Answer **all** questions in section A and **four (4)** questions from section B.
3. Questions **11** is **compulsory**.
4. Section A carries 40 marks and section B carries 60 marks.
5. Cellular phones are **not** allowed in the examination room.
6. Non-programmable calculators may be used.
7. Write your **Examination Number** on every page of your answer booklet(s).

### SECTION A (40 Marks)

Answer **all** questions in this section

1. Write down four characteristics of a good measuring instrument.
2. (a) What is a marking scheme?  
(b) Briefly explain the importance of preparing a marking scheme.
3. State the difference between evaluation and testing in teaching/learning process.
4. (a) Analyse five techniques that can be followed in order to construct the best true-false items.  
(b) Write down three advantages of planning a test.
5. (a) Account for four factors that must be considered before constructing a good test.  
(b) Briefly explain four qualities of a good test.
6. (a) Suppose 0.6 is the correlation between two halves of a test. What will be the correlation coefficient for a complete test?  
(b) What interpretation can you make from the value of correlation coefficient obtained in (a) above?
7. (a) Mention four uses of standard deviation.  
(b) List down four measures of central tendency.
8. How does formative evaluation differ from summative evaluation?
9. (a) Differentiate between predictive validity and concurrent validity.  
(b) Give four methods that are used in estimating the reliability of a test.
10. (a) What is an educational research?  
(b) Briefly explain three characteristics of educational research.

### SECTION B (60 Marks)

Answer **four (4)** questions from this section. Question **11** is **compulsory**.

11. (a) Explain the meaning of correlation coefficient.  
(b) Consider the following tests for students who were selected as a sample for item analysis, 10 from higher achievers and 10 from the low achievers, where A was the correct response.

| Item alternatives | A | B | C | D | E |
|-------------------|---|---|---|---|---|
| Upper group       | 1 | 8 | 1 | 0 | 0 |
| Lower group       | 3 | 2 | 4 | 0 | 1 |

- (i) Calculate the difficult index.
  - (ii) Calculate the discrimination index.
  - (iii) What are your comments about the item given?
12.
  - (a) Describe four types of assessment.
  - (b) Explain five uses of formative assessment.
13.
  - (a) Distinguish between dependent variable and independent variable.
  - (b) Analyse four characteristics of a good;
    - (i) Hypothesis
    - (ii) Research.
14.
  - (a) Outline four factors to be considered before constructing a table of specification.
  - (b) Explain three main components of the table of specification.
15. Both subjective and objective test items are useful in measuring students' performance. Explain five limitations for each.
16.
  - (a) Explain five advantages of an essay tests.
  - (b) Describe five procedures for scoring essay type questions.
17.
  - (a) Outline five steps involved in educational evaluation process.
  - (b) Explain four reasons for evaluation of curricular programmes by educators.
18.
  - (a) Differentiate facility index from discrimination power index of test items.
  - (b) Describe the importance of item analysis. Provide five points.