

THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA
DIPLOMA IN SECONDARY EDUCATION EXAMINATION
762 EDUCATIONAL RESEARCH, MEASUREMENT AND EVALUATION
Time: 3 Hours **Year: 2022**

Instructions

1. This paper consists of sections **A** and **B** with a total of **fourteen (14)** questions.
2. Answer **all** questions.
3. Question **11** is **Compulsory**
4. Section **A** carries **forty (40)** marks , and section **B** carry **sixty (60)** marks..
5. Cellular phones and any unauthorized materials 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. Explain four procedures of scoring objective test items.
2. Describe four characteristics of basic research.
3. Explain four learning assessment techniques.
4. Explain the reasons for choosing questionnaire method as a data collection tool.
5. Categorize the given statements into respective types of educational measurement:
 - (i) Maria is the first student in the class of 80 students.
 - (ii) Ali can define correctly all measurement terms.
 - (iii) A student has a better understanding of questions five but poor understanding in question two.
 - (iv) Kulwa performed above the average while Doto performed below the average in the classroom test.
6. Differentiate the main features of the concept “discrimination index” and “difficult index.”
7. Give brief explanation on
 - (a) Interview
 - (b) Focus group discussion as a research data collection tool.
8. Describe the features to consider in construction of a research topic.
9. Describe the application of ranking and histogram in processing test scores.
10. Support the statement that “A valid test is always reliable but a reliable test is not always valid.”

SECTION B (60 Marks)

Answer all questions from this section

11. Study the scores shown in the table 1 and answer the questions that follow:

Table 1: Mathematics Test Scores

Names of Students	First Administration	Second Administration
A	15	14
B	10	12
C	11	11
D	13	13
E	14	15
F	12	13
G	12	16

Questions:

- a) Determine the correlation co-efficient of reliability of the two administered tests using the Pearson's product correlation coefficient.

$$r = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{(N \sum X^2 - (\sum X)^2)(N \sum Y^2 - (\sum Y)^2)}}$$

- b) Comment on the value obtained in 11 (a).
- c) How could you interpret the correlation of two variables when the value of correlation coefficient is high, moderate and zero?

12. Explain five instruments recommended for assessing students.

13. Describe major steps which are needed in writing a research report.

14. Use your skills in research design to advise the school academic committee on the five major steps of carrying action research.