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

762 EDUCATIONAL RESEARCH, MEASUREMENT AND EVALUATION

Time: 3 Hours **Tuesday, 06th May 2014 a.m.**

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. Question **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).

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SECTION A (40 Marks)

Answer **all** questions in this section.

1. Distinguish the following terms:
   (a) Predictive validity and face validity.
   (b) Ordinal scale and interval scale.
2. (a) What is the difference between an inductive theory and a deductive theory?
   (b) State two characteristics of a useful theory.
3. (a) State three characteristics of a nominal scale of measurement.
   (b) Why should a teacher choose the quartile deviation or standard deviation as the index of variability in order to minimize the effect of extreme score?
4. Outline four characteristics of matching-item type of questions.
5. Suggest four criteria of a good educational research problem.
6. Briefly explain four importance of literature review in research proposal.
7. Briefly explain four characteristics of instructional objectives.
8. (a) Distinguish the terms assessment and evaluation.
   (b) Name four ways of estimating test reliability.
9. (a) Why should hypothesis be clearly stated before research is initiated?
   (b) Give the meaning of research design.
   (c) Educational research can be categorized into two major designs. Differentiate the two categories of research designs based on their functional definitions.
10. (a) Define the term reliability.
    (b) Briefly describe three methods used in estimating reliability of a test.

SECTION B (60 Marks)

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

11. Study carefully the scores of 15 students obtained from Foundations of Education test and answer the questions that follows: 45, 58, 49, 60, 36, 50, 60, 75, 45, 45, 21, 54, 70, 60 and 87.
    (a) Find:
        (i) Mode

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(ii) Median
(iii) Range
(iv) Mean (round off the answer to the nearest whole number).

(b) Calculate the standard deviation (round off the answer to the nearest whole number).
(c) Write the formula of obtaining z-score and T-score.

12. Explain any five factors to be considered when constructing a matching items test.

13. Analyse five criteria that should be used in the process of evaluating the significance of a research problem.

14. Questionnaire is one of the best instruments for data collection. Examine six qualities of a good questionnaire for data collection in assessment.

15. (a) Explain six advantages of using interview as one of the assessment tools.
(b) What are the two components of the basic teaching model?

16. (a) Give six factors to consider in constructing essay-type items.
(b) Explain three advantages and three disadvantages of short answer questions.

17. (a) Explain in detail three functions of standardized test scores.
(b) Explain four importance of evaluation in educational institutions.

18. (a) Analyse five characteristics of the usable hypothesis.
(b) State one hypothesis based on each of the following research questions:
(i) Do teachers expectations of children's intellectual performance have any effect on their actual performance?
(ii) Does preschool training reduce the educational gap separating advantaged and disadvantaged children before they enter first grade?

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