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

762

EDUCATIONAL RESEARCH, MEASUREMENT AND EVALUATION

Time: 3 Hours

Tuesday, 7th May 2013 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. Describe two major types of a research.
2. Analyse four importance of item analysis on assessment and evaluation process.
3. State four limitations of true-false items in measuring students' achievement.
4. (a) Briefly explain two differences between reliability and validity of a test.

   (b) Mention four important considerations when a teacher is constructing test items.
5. Describe four characteristics of quantitative research approach.
6. Briefly explain four reasons why a teacher requires a table of specification.
7. (a) List two advantages and two disadvantages of short answer test items.

   (b) State four characteristics of restricted response items.
8. (a) What do you understand by the following terms as used in measurement and evaluation?

   (i) Diagnostic evaluation

   (ii) Placement evaluation.

   (b) Define the term measurement and state its function in education.
9. Outline four characteristics of a nominal scale.
10. Give four points to differentiate between objective and subjective methods of scoring.

SECTION B (60 Marks)

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

11. Study carefully the scores of 14 students in a Geography test as shown below, and then answer the questions which follows;
    50, 50, 50, 50, 65, 65, 65, 70, 70, 70, 80, 80, 90, 90.
    Find;
    (i) Mean of the score
    (ii) Variance
    (iii) Standard deviation

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(iv) Z-Score of 70 scores obtained by three candidates in the class.

12. (a) Substantiate the statement that: *A measuring device may be reliable without being valid, but it cannot be valid without being reliable.*

(b) Essay items have a number of advantages over objective items. Justify this statement by providing six basic reasons.

13. (a) A survey had an initial response rate of 51%. What suggestions would you make to the researcher to deal with this low response rate?

(b) Describe six objectives of conducting research in educational system.

14. (a) Analyse five factors a test planner should consider in determining the percentage of test content to be represented by each content area.

(b) Explain any five factors to be considered when constructing short-answer items.

15. (a) Explain three test-related factors influencing score reliability.

(b) Account for five physical environment factors which may influence the performance and achievement of students during a test.

16. (a) Analyse three techniques to promote objectivity during marking an essay test.

(b) Provide comprehensive descriptions of the three types of domains used to test instructional objectives according to Bloom's taxonomy.

17. (a) You have been asked to validate an instrument designed to measure a student's academic self-concept. How would you go about establishing the validity of this instrument?

(b) Analyse six factors that can affect test validity.

18. (a) Explain two purpose of writing research proposal before conducting a study.

(b) Explain four principal purposes served by the hypothesis.

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