

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

Time: 3 Hours

Tuesday, 10<sup>th</sup> May 2011 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. Write your **Examination Number** on every page of your answer booklet (s).

*Handwritten note in Swahili:*  
Marka ya majibu yote ya sehemu A na chache 4 za sehemu B. Swali 11 ni lazima. Sehemu A ina 40 marku na sehemu B ina 60 marku. Simu ya mkononi haipendeziwa katika majaraba. Andaa namba ya majibu yako kwenye kila kipage cha kitabu cha majibu.

This paper consists of 4 printed pages.



### SECTION A (40 Marks)

Answer **all** questions in this section.

1. (a) Mention two major types of test items.  
(b) State four reasons of administering a test to students.
2. List down four instruments used in assessing students' achievement.
3. Draw a table with two columns and insert four differences between quantitative research and qualitative research in each column.
4. Outline three strategies you may use for best construction of essay questions.
5. Distinguish between measurement and test by basing your responses on the meanings of the terms concerned.
6. Briefly explain two basic ways of interpreting student performance. Your explanation should focus on their basic functions.
7. What is the importance of research proposal. State four points.
8. Give four differences between basic research and applied research.
9. (a) 'A test may be reliable but need not be valid'. Provide one basic reason to justify the statement.  
*because the test can produce the same answer when repeated but fail to measure what is intended to*  
(b) Mention any two basic qualities of a good test.
10. Write four reasons as to why teachers should use formative evaluation during the teaching and learning process.

### SECTION B (60 Marks)

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

- ✓11. Study carefully the scores of 16 students obtained from Curriculum and Teaching test and answer the following questions:

Student	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Score	50	58	90	60	40	29	56	32	58	81	70	46	55	75	88

(a) Find:

- (i) Mode
- (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) Standardize the scores for student J and P by using z-score and t-score formulae.
12. By providing six points, suggest how multiple choice items can best be constructed.
13. (a) Explain how test-retest method is conducted.
- (b) Explain four disadvantages of test-retest method.
14. Compare and contrast questionnaire and interview by providing three explanations in each case.
15. Describe each of the four types of scales of measurement in education and provide one example of each type.
16. (a) What do the terms assessment, test and measurement mean?
- (b) Analyze six main functions of tests.
17. Analyze six characteristics of subjective type of test items.
18. A teacher wants to stream (band) his 10 pupils after obtaining test scores from the English, Mathematics and Science tests. Examine the given scores in **Table 1** below and answer the following questions:

**Table 1**

Pupil Name	English Score	Z-score	Maths Score	Z-score	Science Score	Z-score	Total Score	Old Position of Pupil in the Class before Standardization
A	50	-1.4	90	1.4	33	-0.8	173	1
D	57	-0.9	73	0.8	40	1.5	170	2
C	59	-0.7	71	0.7	39	1.2	169	3
B	53	-1.1	80	1.0	34	-0.5	167	4
E	76	0.5	46	-0.1	35	-0.2	157	5
F	65	-0.3	54	0.2	36	0.2	155	6
G	80	0.8	34	-0.5	31	-1.5	145	7
I	82	1.0	12	-1.2	37	0.5	131	8
H	76	0.5	22	-0.9	32	-1.2	130	9
J	90	1.5	00	-1.6	38	0.8	128	10
Mean	68.80		48.20		35.50			
Standard deviation	13.77		30.65		3.03			

- (a) By using a ruler and a pencil, or a free-hand drawing, draw **Table 2** in your answer booklet.



**Table 2**

Pupil Name	STANDARDIZED SCORES			Total Score	New Position of Pupil in the Class after Standardization
	English Score	Maths Score	Science Score		
					1
					2
					3
					4
					5
					6
					7
					8
					9
					10

- (b) By using z-score given in **Table 1**, use T-score to standardize English, Mathematics and Science scores and insert them in **Table 2** which you have just drawn.
- (c) Find the total score of every pupil and insert them in **Table 2**.
- (d) Arrange the pupils' names by following the given new position numbers (starting from 1 – 10).
- (e) What is the new position of pupil A in the group?
- (f) Give a major reason that made pupil A's first position in **Table 1** to change to the present position in **Table 2** after standardization had taken place.