

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE EDUCATION

DEPARTMENT OF CURRICULUM AND EDUCATIONAL MANAGEMENT STUDIES

MASTER OF SCIENCE EDUCATION

AUG 2024

ME504: MEASUREMENT AND EVALUATION (01)

DURATION: 3 HOURS

TOTAL MARKS: 300

INSTRUCTIONS TO CANDIDATES

Answer any **three** questions. Each question carries 100 marks. Begin each answer on a separate answer sheet.

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1. Compare measurement and evaluation as used in education (100 Marks)
 2. Evaluate the role of formative and summative evaluation in science curriculum (100 Marks)
 3. Differentiate between criterion referenced and norm-referenced tests (100 Marks)
 4. Describe **any three** features of a good measurement tool in your area of specialisation (100 Marks)
 5. A group of learners wrote a Physics test. The following table shows the performance of the learners in the test.

Learner	Items										Total
	1	2	3	4	5	6	7	8	9	10	
a	1	1	0	1	1	0	0	1	1	1	
b	1	1	1	1	1	0	0	1	1	1	
c	1	1	1	1	1	1	0	1	1	1	
d	1	0	0	1	1	1	0	0	1	1	
e	1	1	0	0	0	0	0	1	0	0	
f	1	1	0	0	0	1	0	0	1	0	
g		1	0	0	0	0	0	0	1	0	
h	1	0	0	1	0	1	0	1	1	1	
i	1	1	1	1	1	1	0	1	1	1	
j	1	1	1	1	1	1	0	1	1	1	
k	1	0	0	0	0	1	0	0	0	0	
m	1	0	0	0	1	1	0	0	1	1	

Key: 1 - means correct answer

0 - means incorrect answer

Where necessary, use formulae provided

- (a) Is this an objective test or an easy test? Explain (5 Marks)
- (b) Find the following statistics on the test (5 Marks)
 - (i) Mean (5 Marks)
 - (ii) Median (5 Marks)
- (c) If a distinction mark is pegged at 80% of the total possible marks, which learners, in any, got a distinction? (5 Marks)
- (d) (i) Find the percentage of learners who did well as well or less than learner h (8 Marks)
 - (ii) What name is given to the statistic calculated in d(i) (2 Marks)
- (e) Which learners, if any, failed the test if the pass mark is pegged at 0.4 standard deviations below the mean? (25 Marks)
- (f) Which learners, if any, go a distinction if a distinction is pegged at 1.25 above mean? (10 Marks)

- (g) Calculate item difficulty index and discriminating index of items (10 Marks)
 (i) 1 (10 Marks)
 (ii) 3 (5 Marks)
- (h) Give the reasons why item 1 should be removed from future tests (5 Marks)
- (i) Give reasons why item 3 is a good item (5 Marks)
- (j) Give reasons why item 3 is a poor item (5 Marks)

END OF PAPER