BINDURA UNIVERSITY OF SCIENCE EDUCATION

AUG 2023

FACULTY OF SCIENCE EDUCATION

DEPARTMENT: CURRICULUM AND EDUCATIONAL MANAGEMENT STUDIES

PROGRAMME: MASTER OF SCIENCE EDUCATION

COURSE CODE: ME504 (01) NARRATION: MEASUREMENT AND EVALUATION

DURATION: THREE HOURS TOTAL MARKS: 300

INSTRUCTIONS TO CANDIDATES

1. Answer question 1 and any other two questions.
2. Each question carries 100 marks except question 1 which carries the indicated marks which will be converted to a percentage.
3. Begin each question on a fresh page.
4. Relate your answers and examples to the education system context.

Question 1

A school head believes that students who are good at Mathematics are also good at Science. A school head collected Mathematics and Science marks from a randomly selected group of ten students. The following is the information the school head obtained.

Student	1	2	3	4	5	6	7	8	9	10
Maths marks	48	67	39	34	43	65	53	47	62	47
Science marks	56	79	37	41	47	65	62	59	70	51

1.1 Compute the Spearman rank order correlation coefficient of the sets of marks and determine whether the school head is justified to think that the students who are good at Mathematics are also good at Science [9]

1.2 Calculate the percentile rank of student 6 in Mathematics. [4]

1.3 In which subject did student 6 perform better than and as well as the other students who wrote the same tests? [24]

1.4 If a pass mark is pegged at 0.25 standard deviations below the mean, which students, if any, failed Mathematics? [8]

1.5 If a distinction is pegged at 1.6 standard deviations above the mean, which students, if any, got a distinction in Mathematics? [8]

2 Compare random and systematic errors in educational measurement and explain ways of minimising random errors. (100 marks)

3 Examine any four factors inherent in the test itself which could reduce its validity. (100 marks)

4 Evaluate the role of school based assessment as an integral part of the students' summative assessment. (100 marks)

5. Justify the use of Stufflebeam's CIPP model to evaluate a stated post-colonial educational programme in Zimbabwe. (100 marks).

END OF PAPER