

UNIVERSITY OF SWAZILAND
FACULTY OF EDUCATION
DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND MANAGEMENT
2006/2007

FINAL EXAMINATION PAPER 2007
POST-GRADUATE CERTIFICATE IN EDUCATION (P.G.C.E.)

TITLE OF PAPER : **MEASUREMENT AND TESTING**
COURSE NUMBER : **EDF 321 [PGCE]**
TIME ALLOWED : **THREE (3) HOURS**
INSTRUCTIONS : **THERE ARE FOUR SECTIONS:**
SECTION A, SECTION B, SECTION C AND
SECTION D.

SECTION A:

- (i) **ANSWER ALL ITEMS ONE (1) TO THIRTY (30)**
- (ii) **THERE IS ONLY ONE CORRECT ANSWER TO EACH ITEM.**
- (iii) **PUT A CIRCLE AROUND THE CORRECT ANSWER IN THE ANSWER-SHEET PROVIDED FOR THIS FINAL EXAMINATION.**

SECTION B: ANSWER ALL ITEMS 31 (THIRTY ONE) TO 40 (FOURTY) BY FILLING THE BLANK SPACE OF EACH ITEM WITH THE CORRECT ANSWER ON THE ANSWER-SHEET PROVIDED FOR THIS FINAL EXAMINATION.

SECTION C: ANSWER ALL ITEMS 41 (FOURTY ONE) TO 50 (FIFTY) BY FILLING THE BLANK SPACE OF EACH ITEM WITH EITHER TRUE OR FALSE RESPONSE ON THE ANSWER-SHEET PROVIDED FOR THIS FINAL EXAMINATION.

SECTION D: ANSWER ONLY TWO (2) QUESTIONS FROM THE THREE (3) ESSAY-ITEMS.

DO NOT OPEN THIS QUESTION PAPER UNTIL THE INVIGILATOR HAS GIVEN YOU PERMISSION TO DO SO.

SECTION A [Compulsory]

QUESTION 1

ITEM 1: An important advantage of the multiple-choice type test is

- a. its wide sampling
- b. its ease of construction
- c. its adaptability to the measurement of appreciation and discrimination
- d. its requirement of organisation by pupils
- e. its emphasis upon recall rather than recognition

ITEM 2: The first step in the construction of a teacher-made test is the

- a. assembly of test items
- b. formulation of test rationale
- c. formulation of test plan
- d. analysis of the curricula plan

ITEM3: Teacher-made achievement tests should be used primarily

- a. as an instrument for promoting pupils
- b. as a substitute for standardized tests
- c. to find out the source of pupils' strengths and weaknesses
- d. to help pupils evaluate their learning

ITEM 4: A standardized test has its chief virtue in the fact that it

- a. is easier to administer than a teacher-made test
- b. is generally of a higher quality than a teacher-made test
- c. permits a comparison of individual and class performance
- d. is easier to correct and grade than a teacher-made test

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ITEM 5: The chief point of distinction between teacher-made and standardized tests lie in the area of

- a. objectivity
- b. norms
- c. marketability
- d. overall quality
- e. sampling

ITEM 6: The most significant purpose of the school's testing programme is

- a. to motivate students to greater effort and progress
- b. to improve the school's instructional programme
- c. to provide a basis for counselling with students
- d. to promote pupils' self-understanding and self-acceptance
- e. to guide parents and teachers to a better understanding of individual pupils

ITEM 7: What is the MEAN of the following distribution - 1, 1, 7, 8, 8?

- a. 1
- b. 2
- c. 5
- d. 7
- e. 8

ITEM 8: Norms represent

- a. acceptable performance for a given age
- b. actual performance for a given age or grade
- c. minimum acceptable performance for a given age or grade
- d. average goals to be attained by each class at a certain age or grade
- e. goals to be attained by each child at a certain age or grade

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ITEM 9: Item for item, which of the following tends to be the best from the standpoint of validity, reliability and usability for a course in educational psychology?

- a. completion
- b. matching
- c. multiple choice
- d. simple-recall
- e. true-false

ITEM 10: An important disadvantage of the multiple-choice type test is

- a. its lack of objectivity
- b. its low reliability
- c. its narrowness of sampling
- d. its difficulty of construction
- e. its susceptibility to guessing

ITEM 11: The standard deviation is best thought of as

- a. a measure of the degree of relationship between two variables
- b. a standard or average error of the items in tabulated data
- c. the mid-point of the 16th and the 18th percentile
- d. the squareroot of the mean of the deviation about the mean
- e. a measure used to specify half the spread of the middle 50% of the cases of a given distribution.

ITEM 12: An effective marking and reporting system should probably minimize

- a. the pupil's present status
- b. the pupil's progress
- c. the pupil's status relative to his ability
- d. the pupil's status relative to the class
- e. the pupil's progress relative to his ability

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ITEM 13 : The greatest single purpose served by grades in school is

- a. to reflect present educational status
- b. to reflect intelligence
- c. to reflect later potential achievement
- d. to determine promotion and retention
- e. to serve as the basis for administrative reports

ITEM 14 : The most important advantage of the true-false test is

- a. its elimination of guessing
- b. its wide sampling
- c. the validity of the items
- d. the high diagnostic value
- e. its ease of construction

ITEM 15: The ultimate value of any given instrument of measurement lies in

- a. its reliability
- b. the interpretability of its outcomes
- c. its validity
- d. the equality of its units
- e. the diagnostic nature of the scores it yields

ITEM 16: A test whose items are arranged in order of difficulty is said to be

- a. diagnostic
- b. discriminating
- c. objective
- d. reliable
- e. scaled

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ITEM 17 : Which of the following is the greatest weakness of the essay-type examination from the standpoint of usability?

- a. It does not test all that it purports to test
- b. It requires a great deal of time to grade
- c. This type of test is time-consuming in preparation
- d. The grading is subjective
- e. The students spend too much of their time in writing instead of thinking and organizing

ITEM 18 : An objective test is one

- a. for which definite norms have been established on the basis of which to evaluate students performance objectively
- b. in which teacher judgement in the construction of the test is eliminated
- c. on which equally adequate answers get the same rating
- d. whose items reflect directly upon the objectives of the course
- e. which makes a systematic (valid) coverage of the objectives of the course

ITEM 19 : Which of the following statements concerning testing is not true?

- a. The test should measure what it is supposed to measure
- b. The test should measure consistently, whatever it measures
- c. The test should be of sufficient difficulty that no student gets a perfect score
- d. the more alike the performance of the students on the test, the better the test
- e. The test should emphasize ability to think about the material of the course rather than mere ability to reproduce its contents.

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ITEM 20 : If all of the top 40 students out of a class of 150 pass a certain item while only half of the bottom 40 pass it, it would appear that

- a. the discrimination of the item is very good, the difficulty is very high
- b. the discrimination of the item is very good, the difficulty is low
- c. the discrimination of the item is acceptable, the difficulty is too high
- d. the discrimination of the item is acceptable, the item is too easy
- e. the discrimination of the item is poor, the difficulty is too high

ITEM 21: Which of the following is the least acceptable statement of the relationship between the reliability and validity of a test?

- a. validity is an aspect of reliability but the reverse statement cannot be made
- b. Reliability can be increased at the expense of validity
- c. Most tests have an excess of reliability and a shortage of validity
- d. Reliability is affected by random errors, validity by constant errors
- e. A perfectly valid test would automatically have to have perfect reliability

ITEM 22: Other things being equal, which type of test tends to have the lowest reliability?

- a. completion
- b. essay
- c. matching
- d. simple recall
- e. true-false

ITEM 23 : Should a teacher make deductions for mis-spelled words in an examination in a content subject?

- a. Yes, good spelling is a goal for which all teachers are responsible
- b. Yes, all errors should result in deductions
- c. No, such deductions would invalidate the test
- d. Yes, but only to the extent that spelling is a basic objective of the course
- e. No answer, it is a matter of personal preference

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ITEM 24 : A pre-test given to determine a student's chances of success in a given course can be said to have predictive validity if

- a. it produces scores that agree with teacher judgement
- b. it is oriented toward the objectives of the course
- c. it produces scores that are relatively consistent
- d. it ranks students in essentially the same order as they rank on the final test of the course
- e. it parallels the course from the standpoint of content and emphasis on each aspect

ITEM 25 : If only one general school-wide testing programme can be out during the year for "guidance purposes" it should probably come

- a. at the end of the year
- b. at the middle of the year
- c. when it can be fitted into the programme with least disruption
- d. anytime; one time is as good as another
- e. at the beginning of the year

ITEM 26 : When a classroom teacher says "Buhle is smarter than Senzo," he is employing which measurement scale?

- a. Normal
- b. Ordinal
- c. Interval
- d. Ratio
- e. Categorical

ITEM 27 : The tallying of the number of times each score value occurs in a group of scores is a frequency

- a. manipulation
- b. distribution
- c. graphing
- d. histogram
- e. polygon

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ITEM 28 : Which of the following is not a characteristic feature of continuous assessment?

- a. Guidance-oriented
- b. Affective
- c. Cumulative
- d. Comprehensive

ITEM 29 : The primary purpose to be served by a school's testing program is that of

- a. helping the teacher in the process of guiding the child's growth toward maximum self-realization
- b. helping the counsellor in the process of guiding the student's growth toward maximum self-realisation
- c. identifying over-and underachievers
- d. providing a better understanding of individual children
- e. providing the information necessary for the cumulative record system

ITEM 30 : The consensus of modern educators concerning standards of the school is that

- a. all children should be made to meet minimal standards
- b. all children should be retained in a given grade until they have the standards of that grade
- c. the standard must be adapted to meet the child
- d. the less the emphasis upon standards the better
- e. standards should be of prime concern to teachers but should not apply to individual students

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SECTION B (Compulsory)

Fill in each blank space with the exact conceptual response(s).

31. The sum of all scores divided by the number of scores is the _____.
32. Graphically presented material in which a bar represents the number of cases in an interval of measurement is a _____.
33. The measure usually used to determine the variability of a set of scores around the mean value is the _____.
34. _____ refers to testing which is characterized by consistent administration and the use of establishing norms in the assessment of scores
35. The procedure for organising, summarising and describing quantitative data or information is known as _____.
36. Those variables that scientists manipulate in order to produce effects are known as _____ variables.
37. If each element in a population has an equal chance of being chosen for a sample, the sampling is _____.
38. _____ is the degree to which scores deviate from their central tendency.
39. _____ refers to making reliable inferences from observational data.
40. The value of a variable which occurs most often is called the _____

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SECTION C (Compulsory)

For each of the following statements, indicate whether the statement is TRUE or FALSE.

41. It is because we can assign numerical codes to colours to indicate our preferences that such a code must be an ordinal variable. (True/False)
42. The volume of sugar shipped each year from Australia to Canada is an example of a discrete variable. (True/False)
43. Without statistics, decision-making would be impossible. (True/False)
44. Face validity is more essential to establish for a personality test than construct validity. (True/False)
45. Alternate Form Reliability allows the examiner to obtain only a measure for two different types of reliability (True/False)
46. Predictive validity is applicable to tests employed for assigning military personnel to training programmes (True/False)
47. The average Intelligence Quotient (I.Q) falls in a range between 110 and 120 (True/False)
48. All people with IQ measured at 10 – 25 can be taught arithmetic, reading and writing. (True/False)
49. Reliability indicates the relationship between test scores and something we wish to predict from these scores. (True/False)

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50. The correlation coefficient is a procedure for determining whether there is a relationship between measures and the degree of relationship. (True/False)

SECTION D

INSTRUCTION: Answer any TWO questions from this Section D.

Question 2

“The construction of satisfactory tests (that is those that are valid and reliable) is one of the most difficult duties that a teacher has to perform.”

From this assertion, explain and illustrate with a diagram, the general principles for constructing teacher-made tests.

[25 marks]

Question 3

- (a) Define (from a categorical perspective) the meanings of STATISTICS. [5 marks]
- (b) Describe FOUR specific reasons why statistics is vital to the study of Education [10 marks]
- (c) Explain the value of statistical knowledge in Research. [10 marks]

Total = 25 marks

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Question 4

- (i) What are Multiple-Choice Items? [5 marks]
- (ii) Outline in a sequential manner, the general steps in the construction of multiple-choice test-items. [20 marks]

Total = 25 marks