MEDC22

N.V.K.S.D. COLLEGE OF EDUCATION, ATTOOR

(AUTONOMOUS)

M.Ed. Degree Second Semester Examination, December 2020

(For the candidates admitted for the academic year 2019-2021)

Tool course:ESSENTIALS IN EDUCATIONAL RESEARCH AND STATISTICS

Course code: MED2TC02

Time: 3 Hours **Maximum Marks: 70**

SECTION A (10 x 1 = 10 marks)

Answer ALL the questions by selecting the appropriate answers.

1. The type of research that examines past occurrences in order to understand a current state is
   a) Experimental research b) Survey research
   c) Ex-post facto research d) Historical research
2. Type of validity aimed at determining the extent to which a score on a scale or test predicts scores on some criterion
   a) Face validity b) Predictive validity c) Concurrent validity d) Construct validity
3. Sociometry was introduced by
   a) Hugh Hartshorn b) Jacob.L.Morino c) Mark.A.May d) Eysenck
4. Categorical data are measured in
   a) Nominal scale b) Ordinal scale c) Ratio scale d) Interval scale
5. The first formal technique to measure an attitude is
   a) Thurston's scale b) Likert scale c) Eysenk's scale d) Binet scale
6. The variable which is manipulated by the investigator while doing an experimental research is known as
   a) Dependent variable b) Independent variable
   c) Confounding variable d) Extraneous variable
7. When the sample size increases the standard error
   a) Decreases b) Increases c) Remains the same d) Becomes zero
8. A standardized tool is having the characteristics except
   a) Validity b) Reliability d) Subjectivity d) Practicability
9. The value of correlation coefficient when there is perfect positive correlation between the variables
   a) 1 b) <1 c) 0 d) >1
10. If mean, median and mode are equal, the distribution is
    a) Positively skewed b) Negatively skewed c) Normal d) None of these

SECTION B (5x3 = 15 marks)

Answer all the FIVE questions in about 100 words each.

11. Explain the characteristics of quantitative research.
12. Briefly discuss the different steps in sample survey.
13. Mention the errors creep in while using a rating scale**.**
14. Write a short note on central limit theorem.
15. How will you minimize sampling error?

SECTION C (5 x 5 = 25marks)

Answer any FIVE questions in about 200 words each.

16. Discuss the factors that affect internal and external validity of an experimental research.
17. Explain different types of validity. In which kind of tools, do we expect each one of these types.
18. Discuss the different types of interviews with their relative merits and demerits.
19. Prepare five items for measuring teaching aptitude.
20. Explain the characteristics of normal probability curve.
21. Find the Rank correlation coefficient of the following data.

Sl.No	1	2	3	4	5	6	7	8	9	10
Marks in Maths	55	65	61	78	92	49	30	100	77	94

Marks in Science	42	86	35	78	91	68	55	41	91	82

22. Explain the concept of linear regression mentioning its major uses.

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SECTION D (2x 10 = 20 marks)

Answer BOTH the questions in about 500 words each.

23. (a) Explain the major steps involved in casual comparative research. Mention its uses in education with examples.

(Or)

(b) Describe the characteristics of a good attitude scale. Explain the Thurstone method of constructing an attitude scale.

24. (a) Explain scales of measurement and its applicability in research.

(Or)

(b) Describe the significance of inferential statistics in research. Explain the different types.