



Alleviate

Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)

Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B

Coimbatore - 641 043, Tamil Nadu, India

Master of Education Degree Examination – May 2023 II Semester

Class: I M. Ed.

Time : 3 Hours

Max. Marks : 100

21MEDC07 Advanced Educational Research and Statistics

Course Outcomes:

CO1: choose appropriate quantitative or qualitative method to collect data

CO2: write a research proposal suitable for submission to a research funding body

CO3: carry out independent research using a range of research designs and methods

CO4: maintain respect for individual research contributions and intellectual property rights and demonstrate ethical behavior

CO5: interpret and present the results of an independently conducted statistical analysis

Part A

10 x 1 = 10

Choose the Correct Answer

- Which of the following is a method that is commonly used in qualitative research? CO1 K2
 - Self-completion questionnaires
 - Surveys
 - Ethnography
 - Structured observation
- "Grounded theory" means CO1 K3
 - theories should be tested by rigorous scientific experiments
 - as a social researcher, it is important to keep your feet on the ground
 - theories should be grounded in political values and biases
 - theoretical ideas and concepts should emerge from the data
- One of the preoccupations of quantitative researchers is with generalization, which is a sign of CO2 K3
 - external validity
 - external reliability
 - internal validity
 - internal reliability
- The uncontrollable factors are the factor CO2 K3
 - that varies according to a normal distribution
 - that does not vary at all
 - that can be controlled by the user
 - that cannot be changed according to the wish of the user
- Intellectual Property Rights (IPR) protect the use of information and ideas that are of _____ value. CO3 K2
 - ethical
 - moral
 - social
 - commercial
- The conclusion of a research report CO3 K3
 - can introduce new information
 - must be based only on material presented in the report
 - is the same as the abstract except that it is presented at the end of the report.
 - should focus only on the findings of the research
- Find out the range of following data: 7, 6, 4, 3, 8, 12 CO4 K2
 - 5
 - 9
 - 4
 - 2
- The analysis of the relationship between two variables which help in providing the prediction mechanism is CO4 K4
 - Standard error
 - Correlation
 - Regression
 - Standard deviation
- The major attribute of Correlation Analysis is CO5 K3
 - Association among variables
 - Difference among variables
 - Regression among variables
 - Variations among variables
- The format of thesis writing is the same as in CO5 K2
 - writing of Seminar representation
 - preparation of research paper/article
 - a research dissertation
 - presenting a workshop/conference paper

Part B
Answer ALL questions

5 x 6 = 30

Each answer should not exceed 400 words or two pages

- 11.a. Compare different types of qualitative research study. CO1 K3
(or)
- 11.b. Bring out the steps involved in a case study. CO1 K3
- 12.a. Write about the factors affecting internal and external validity. CO2 K2
(or)
- 12.b. Explain the meaning and purpose of research designs. CO2 K2
- 13.a. Summarize the importance of bibliography in research report. CO3 K5
(or)
- 13.b. Record the criteria for the evaluation of a research report. CO3 K4
- 14.a. Outline the meaning and types of correlation. CO4 K4
(or)
- 14.b. Report on scatter plots and their interpretation. CO4 K5
- 15.a. State the statistical applications of Chi – square test. CO5 K4
(or)
- 15.b. Examine the conditions for selection of large samples. CO5 K2

Part C
Answer ALL questions

5 x 12 = 60

Each answer should not exceed 800 words or four pages

- 16.a. Describe the merits and demerits of ethnographic research and the steps involved with example. CO1 K2
(or)
- 16.b. Design a qualitative study involving different phases. CO1 K5
- 17.a. Enumerate any four types of experimental designs with examples. CO2 K3
(or)
- 17.b. Describe the features essential to experimental design and explain Quasi experimental designs with examples. CO2 K2
- 18.a. Construct a research proposal in a topic of your own interest. CO3 K6
(or)
- 18.b. Write a short note on Intellectual Property Rights and Patent Law. CO3 K3
- 19.a. Calculate Spearman's Rank order Correlation coefficient for the following data: CO4 K4
- | | | | | | |
|----|----|----|----|----|----|
| X: | 91 | 75 | 58 | 82 | 47 |
| Y: | 43 | 79 | 62 | 64 | 81 |
- (or)
- 19.b. Find the line of regression of y on x for the following data: CO4 K6
- | | | | | | |
|----|---|---|---|---|---|
| X: | 1 | 2 | 3 | 4 | 5 |
| Y: | 7 | 6 | 5 | 4 | 3 |
- 20.a. In a study of reading achievement, a sample of 162 boys and a sample of 158 girls of Standard X scored as below on a reading achievement test: CO5 K6
- | Sex | N | Mean | SD |
|-------|-----|------|-------|
| Boys | 162 | 115 | 14.52 |
| Girls | 158 | 119 | 9.81 |
- Assuming that our samples are random, is the difference between the means significant at 0.05 level? Discuss.
(or)
- 20.b. Explain Standard error of mean and the concept of one-tailed and two tailed tests. CO5 K3
