



Mamunif

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 - July 2022
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

1. The sample survey and experimental method are the most typical examples of
a. Quantitative research b. Qualitative research
c. Historical research d. Case study **CO1 K2**
2. The first and most significant step in the research process is to formulate a
a. hypothesis b. research objectives c. concepts d. research problem **CO1 K1**
3. Blue print of a research process is known as
a. research draft b. analytical layout c. abstract d. research design **CO2 K2**
4. The effectiveness of an experimental variable is examined by comparing it with another variable, known as
a. Confounding variable b. Ordinal variable
c. Controlled variable d. Categorical variable **CO2 K3**
5. _____ is the systematic process of arranging of keywords to enable users to locate items in a document.
a. In-text citation b. Endnotes c. Bibliography d. Indexing **CO3 K2**
6. Questionnaire, Interview guide or schedule, photo etc. can be included in
a. Appendix b. Footnotes c. Indexing d. Bibliography **CO3 K2**
7. The term regression was first used by
a. Karl Pearson b. Spearman c. R A Fisher d. Francis Galton **CO5 K1**
8. Type II error means
a. accepting a true hypothesis b. rejecting a true hypothesis
c. accepting a wrong hypothesis d. rejecting a wrong hypothesis **CO5 K3**
9. _____ is a non-parametric test.
a. F test b. Z test c. t test d. Wilcoxon test **CO5 K2**
10. In one way ANOVA, the variances are
a. within samples b. between samples c. total d. All the above **CO5 K3**

Part B**5 x 6 = 30****Answer ALL questions****Each answer should not exceed 400 words or two pages**

- 11.a. Spell out the different methods of qualitative research. CO1 K5
(or)
- 11.b. Provide the characteristics of a good qualitative study. CO1 K4
- 12.a. Give the meaning and purpose of research designs. CO2 K3
(or)
- 12.b. Write the objectives and hypotheses for the following title of the research : CO2 K4
"Effectiveness of e-content on the achievement of Science students at school level".
- 13.a. Discuss the characteristics of a good research tool. CO3 K6
(or)
- 13.b. Write a short note on IPR. CO4 K2
- 14.a. What are the uses of regression analysis in prediction? CO4 K3
(or)
- 14.b. Describe the three types of correlation. CO4 K2
- 15.a. Differentiate Parametric from Non-Parametric method of analysis. CO4 K2
(or)
- 15.b. Define and illustrate the concept of degrees of freedom. CO4 K2

Part C**5 x 12 = 60****Answer ALL questions****Each answer should not exceed 800 words or four pages**

- 16.a. Explain the various forms of ethnographic designs. CO1 K2
(or)
- 16.b. Describe the steps involved in case study with its merits and demerits. CO1 K4
- 17.a. List out the factors affecting internal and external validity in research. CO2 K2
(or)
- 17.b. Describe the steps involved in conducting an experimental research. CO2 K2
- 18.a. Elaborate the structure of a research report and its main constituents. CO3 K4
(or)
- 18.b. Prepare a research proposal for a topic of your own choice. CO3 K6
- 19.a. Find the rank correlation for the given data: CO5 K4

X:	86	68	71	23	47	90	54	75	40	61	43	55
Y:	73	87	45	35	60	86	45	65	43	58	50	48
- (or)
- 19.b. Calculate the regression coefficient and obtain the lines of regression for the following data: CO5 K4

X:	1	2	3	4	5	6	7
Y:	9	8	10	12	11	13	14
- 20.a. What is Chi-square test? State its applications in educational research. CO5 K3
(or)
- 20.b. 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 |
- Calculate t-test.