



# Avinashilingam Institute for Home Science and Higher Education for Women

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

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

Coimbatore - 641 043, Tamil Nadu, India

Master of Education Degree Examination - November 2019

I Semester

Class : I M.Ed.

Time : 3 hours

Max. Marks : 60

## 18MEDC03 Introduction to Educational Research and Statistics

### Course Outcomes:

- CO1: Independently search for, integrate and critically assess research Information within the field of education.
- CO2: Design different data collection methods and conduct an indepth interview, a focus group, qualitative case study and a mixed method study.
- CO3: Construct instruments for the measurement of different psychological, sociological, technological and other educational factors.
- CO4: Enter, analyse and interpret the results of the data using SPSS and Microsoft Excel.
- CO5: Apply basic concepts in Statistics to educational research

### Part A

10 x ½ = 5

### Choose the Correct Answer

1. Research done to get more knowledge is called \_\_\_\_\_ research. CO1 K2
  - a. fundamental b. qualitative
  - c. applied d. action
2. Scientific method is a \_\_\_\_\_ method of inquiry. CO1 K1
  - a. random b. systematic
  - c. one-step d. haphazard
3. Rating scale is \_\_\_\_\_ of degree of responses. CO2 K3
  - a. list b. order
  - c. set d. note
4. What does randomization ensure in experimental research? CO2 K4
  - a. Uniformity of the groups
  - b. Similarity of the groups
  - c. Uniformity and similarity of the groups
  - d. Uniformity, similarity and equalization of the groups
5. What are the characteristics of a good measuring technique? CO3 K2
  - a. Objectivity b. Reliability
  - c. Usability d. All of the above
6. The difference between a personality inventory and an intelligence test is CO3 K5
  - a. of length b. of style
  - c. of right and wrong answers d. of foreign make
7. ANOVA does NOT assume that the CO4 K5
  - a. treatment groups are selected at random from the same population
  - b. adjusted scores within groups have normal distribution
  - c. treatment groups are homogeneous
  - d. treatment groups are drawn from a larger population

8. The average weight of a group of 25 boys was calculated to be 78.4 lbs. It was later discovered that the weight of one boy was misread as 69 lbs instead of 96 lbs. The correct average is
- a. 78.48
  - b. 79.00
  - c. 79.48
  - d. 79.84
- CO4 K4

9. \_\_\_\_\_ is a measure of central tendency.
- a. Quartile Deviation
  - b. Standard Deviation
  - c. Median
  - d. Range
- CO5 K1

10. A correlation of +0.8 indicates the association between the two variables is
- a. positive and strong
  - b. positive and weak
  - c. negative and strong
  - d. negative and weak
- CO5 K3

**Part B** 5 x 4 = 20

**Answer the following questions**

**Answer: should not exceed 200 words or one page**

- 11a. Explore the criteria of good research. CO1 K4  
(or)
- 11b. Give a note on role of computer technology in research. CO1 K2
- 12a. Express your opinion on Analytical Research. CO2 K2  
(or)
- 12b. Criticise Interview method in educational research. CO2 K4
- 13a. How will you analyze the Sampling errors? CO3 K4  
(or)
- 13b. Compose the procedure for Inter rater reliability. CO3 K6
- 14a. List the characteristics of normal probability. CO3 K1  
(or)
- 14b. Differentiate frequencies and continuous measures. CO4 K4
- 15a. Draw an Ogive graph for the following set of data: CO4 K4  
02, 07, 16, 21, 31, 03, 08, 17, 21, 55, 03, 13, 18,  
22, 55, 04, 14, 19, 25, 57, 06, 15, 20, 29, 58.  
(or)
- 15b. Calculate the standard deviation of the following values: 5, 10, 25, 30, 50. CO5 K4

**Part C** 5 x 7 = 35

**Answer the following questions**

**Answer: should not exceed 600 words or three pages**

- 16a. What is the nature of Educational Research and discuss the qualities of a researcher? CO1 K2  
(or)
- 16b. Define Educational research and analyse the nature of Educational research. CO1 K4
- 17a. Compare Quantitative research with qualitative research. CO2 K5  
(or)
- 17b. What is the use of Validity in the experimental research? CO2 K3

18a. What is focus group discussion? Compose the steps in literature review.

CO3 K6

(or)

18b. Define hypothesis and categorize the hypothesis with examples.

CO3 K4

19a. What is graphical representation of the data and illustrate its types with suitable examples?

CO4 K3

(or)

19b. Define statistics and report the types of data in the research.

CO4 K2

20a. Find the mean, standard deviation and variance from the given data:

CO5 K4

|           |   |   |    |    |    |    |    |    |
|-----------|---|---|----|----|----|----|----|----|
| Marks     | 2 | 7 | 12 | 17 | 22 | 27 | 32 | 37 |
| Frequency | 2 | 5 | 7  | 13 | 21 | 16 | 8  | 3  |

(or)

20b. Following are the marks of the 10 students: 56, 48, 65, 35, 42, 75, 82, 60, 55, 50; Find QD and also its coefficient.

CO6 K5

\*\*\*\*\*