

18MEDC06– Advanced Educational Research and Statistics

Course Outcomes: The learners will be able to

- CO1: independently search for, integrate and critically assess research information within the field of education
- CO2: design different data collection methods and conduct an in-depth 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
- CO5: apply basic concepts in statistics to educational research

PART – A

6 x 1/2 = 3

Choose the correct answer

1. The type of qualitative research that describes the in depth qualities of person or a system or an institution is called
- a. Grounded theory
- b. Case study
- c. Ethnography
- d. Survey
- CO1 K2
2. The type of qualitative research that describes the culture of a group of people is called ____.
- a. Ethnography
- b. Phenomenology
- c. Grounded theory
- d. Case study
- CO2 K1
3. Which of the following is *not* usually found in a report of a quantitative study?
- a. Measurement
- b. Results
- c. Validation
- d. Confession
- CO2 K4
4. Measures of Position is a type of
- a. Inferential statistics
- b. Differential statistics
- c. Descriptive statistics
- d. Correlational statistics
- CO5 K3
5. A correlation of -1.24 means
- a. a moderate negative correlation
- b. an inverse relationship between two variables
- c. direct negative correlation
- d. an error has been made
- CO5 K3
6. Of the following which is a non parametric test?
- a. t test
- b. ANOVA
- c. Chi square
- d. ANCOVA
- 3 x 4 = 12

Answer ALL Questions

Answer should not exceed 200 words or one page

7. Differentiate qualitative and quantitative research
- (or)
- CO1 K2
7. Compare and contrast grounded theory and ethnographic research.
- CO1 K3
8. With an illustration explain how you will conduct a case study research?
- (or)
- CO2 K6
8. List down various steps involved in ethnographic research.
- CO5 K2
9. Illustrate with example the different types of statistics
- (or)
- CO3 K6
9. Distinguish between Parametric & Non Parametric statistics.
- CO3 K1

PART – C

3 x 10 = 30

Answer the following

Answer should not exceed 600 words or four pages

10. a. What are the characteristics of a good qualitative study? CO1 K2
(or)
b. What are the reasons for conducting qualitative study? CO1 K2
11. a. Explain one tailed and two tailed test with suitable diagram. CO4 K3
(or)
b. The grades of five students in mathematics and chemistry classes are: CO5 K3

| | | | | | | |
|-------------|-----|-----|---|---|-----|-----|
| Mathematics | 6 | 4 | 8 | 5 | 3.5 | 6 |
| Chemistry | 6.5 | 4.5 | 7 | 5 | 4 | 6.5 |

Determine the regression equations and calculate the expected grade in chemistry for a student who has a 7.5 in mathematics.

12. a. Find the value of the Pearson's correlation coefficient from the following table and interpret the result. CO5 K3
- | Subject | Age | Glucose level |
|---------|-----|---------------|
| 1 | 43 | 99 |
| 2 | 21 | 65 |
| 3 | 25 | 79 |
| 4 | 42 | 75 |
| 5 | 57 | 87 |
| 6 | 59 | 81 |
- (or)
12. b. What do you mean by scatter plots? Illustrate with an example. CO5 K3