

23 MIRC08 Research Methods and Statistical Applications

Course Outcomes:

1. Design the tools for collection; identify the samples, interpretation of data with the use of tables and pictorial representations.
2. Assess the numerical data for providing statistical evidences to support the research results.
3. Become a qualified researcher
4. Apply statistical tools to ensure reliability and validity of data
5. Present research data in a scientific manner

Part A

6 x 1 = 6

Choose the correct answer

1. Hypothesis are statements about the relation between the ----- (CO1 K2)
a. variables b. data's c. characteristics d. facts
2. Classification according to the qualities of attributes is (CO3 K2)
a. Geographical classification b, chronological classification
c. qualitative classification d. quantitative classification
- 3, The measures of Central Tendency is called as (CO2 K1)
a. average b. mean c. median d. mode
4. A numerical measure of the degree of relationship between the variables is called (CO1K2)
a. coefficient of correlation b. correlation analysis
c. pearsonian coefficient of correlation d. Karl Pearson's method
5. The success of statistical tests depend upon ----- (CO2 K3)
a. reliability of the data b. systematic characteristics c. logical reasoning d. external validity
6. Three dimensional diagram, also known as (CO2 K1)
a. volume diagram b. circle diagram c. rectangle diagram d. square diagram

Part B

Answer the following

3X6=18

Answer should not exceed 400 words or two pages

- 7.a. What are the basic principles of classification.. (CO3 K3)
(Or)
- 7.b . Explain the impotence of editing and coding the data (CO1 K3)
8. a. Draw the blank table and explain the parts of the table (CO3 K1)
(Or)
8. b. Draw the following data by Histogram (CO3 K4)
Weight(kg) 35-40 40- 45 45-50 50-55 55-60 60-65
No. of persons 12 30 22 30 18 10
9. a. Define Median and discuss its relative merits and demerits (CO4 K2)
(Or)
9. b. The following are the marks obtained by a group of students in two papers.
Calculate the rank coefficient of correlation.
Economics : 78 36 98 25 75 82 92 62 65 39
Statistics : 84 51 91 69 68 62 86 58 35 49 (CO4 K3)

Part C

Answer the following

3 x 12 = 36

Answer should not exceed 800 words or four pages

- 10.a. What are the various types of graphs used for presenting a frequency distribution.(CO3K4)
Discuss briefly their (i). construction and(ii.) relative merits and demerits.
(Or)
- 10.b. Calculate Karl Pearson's co-efficient of skewness from the following data
Size : 1 2 3 4 5 6 7
Frequency : 10 18 30 25 12 3 2
(CO4K4)
- 11.a. Briefly explain the components of report writing with example (CO4K4)
(Or)
11. b. Explain Pictograms and Cartograms with illustration. (CO3 K4)

12. a. Draw a percentage bar diagram to represent the following data. (CO4 K3)

S.No	Items of expenditure	Income in Rupees	
		Family A	Family B
1	Food	400	400
2	Clothing	200	200
3	House rent	160	200
4	Fuel	80	120
5	Miscellaneous	160	400
	Total	1000	1320

(Or)

12.b. Briefly explain the sampling and non sampling errors. (CO4K3)

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Name of the staff: Dr. (Mrs) K. Manimozhi