

BACHELOR OF AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (2017 COURSE)

**B. A. S. L. P. Sem-I :SUMMER- 2022
SUBJECT : RESEARCH METHODS & STATISTICS**

Day : Tuesday

Time : 10:00 AM-01:00 PM

Date : 20-09-2022

S-17896-2022

Max. Marks : 75

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagrams **WHEREVER** necessary.
- 4) Answers to both the sections should be written in the **SEPARATE** answer books.

SECTION – A

Q.1 Write short notes on **ANY THREE** out of **FOUR** of the following: [15]

- a) Validity of research
- b) Survey methods
- c) Ex-post facto research
- d) IV and DV

Q.2 Attempt **ANY ONE** out of **TWO** of the following: [10]

- a) Define variables and explain its types of variables.
- b) Explain different types of data collection methods.

Q.3 Attempt **ANY ONE** out of **TWO** of the following: [15]

- a) What is sampling? Explain different types of sampling.
- b) What is research? Explain different types of research design.

SECTION – B

Q.4 Attempt **ANY TWO** out of **THREE** of the following: [10]

- a) Explain the term type – I error, type – II error, level of significance.
- b) Calculate ‘combined mean’ and combined standard deviation’ using the data given below:

	Mean	SD	Size
Group – I	70	10	50
Group – II	55	15	100

- c) Calculate coefficient of correlation between x and y from the following series:

X	6	2	10	4	8
Y	9	11	9	8	7

P.T.O.

Q.5 Attempt **ANY ONE** out of **TWO** of the following: **[10]**

- a) i) Distinguish between Correlation and Regression.
 ii) Write short note on 'Frequency Distribution'.
- b) i) Explain t-test explain its properties.
 ii) In a certain experiment to compare two types of Food A and B, the following results of increase in weights are observed in subjects.

Increase in weight	Food A	49	53	51	52	47	50	52	53
	Food B	52	55	52	53	50	54	54	53

Assuming two samples independent, can we conclude that Food B is better than Food A in promoting weight gain?

Q.6 Attempt **ANY ONE** out of **TWO** of the following: **[15]**

- a) i) Write short note on one-way analysis of variation.
 ii) Explain 'Skewness' and Kurtosis.
- b) A sample of 500 persons with particular disease was selected. Out of these 100 were treated with medicine other were not? The results are as follows:

	Treated with medicine	Not treated	
Got disease	90	16	25
Did not get disease	151	324	475
	160	340	500

Do the data present enough evident for the effectiveness of the medicine?

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