

**B.Sc. AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY**  
**SECOND YEAR**  
**PAPER VII - BASIC STATISTICS AND SCIENTIFIC ENQUIRY IN**  
**AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY**

*Q.P. Code: 802317*

**Time: Three Hours**

**Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe the various measures of central tendency and compare their merits.
2. Discuss the steps used in research methods in Audiology and Speech Language Pathology Studies.
3. Use the following data to find out if exposure to infectious disease is associated with developing hearing loss. (5% level of  $\chi^2$  distribution with 1 degree of freedom = 3.84)

	Had hearing loss	Had no hearing loss
Exposed to infectious disease	30	20
Not exposed to infectious disease	10	40

**II. Write Notes on:**

**(8 x 5 = 40)**

1. Mention application of statistics to speech and hearing.
2. What are the types of variable?
3. State the properties of Normal Distribution.
4. When will you use F test of significance?
5. Briefly state the need for scientific enquiry.
6. What are the ways of stating research topic?
7. Write briefly on two methods of data collection.
8. Distinguish between type I error and type II error.

**III. Short Answers on:**

**(10 x 3 = 30)**

1. Define Statistics.
2. Write an example of discrete measurement.
3. Which diagram will help in calculating median and quartiles?
4. Define Probability.
5. Define Sample.
6. Give an example of Null Hypothesis.
7. How will you interpret correlation coefficient?
8. When will you use bar diagram?
9. What is behavioural measure?
10. When is Ex post-facto design used?

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