

**KALOJI NARAYANA RAO UNIVERSITY OF HEALTH SCIENCES  
TELANGANA, WARANGAL – 506 002**

**B.Sc. (Allied Health Sciences), SECOND YEAR DEGREE EXAMINATIONS: FEBRUARY 2026**

**AUDIOLOGY AND SPEECH THERAPY**

**PAPER V**

**BASIC STATISTICS AND SCIENTIFIC ENQUIRY IN AUDIOLOGY AND  
SPEECH LANGUAGE PATHOLOGY**

**Time: 3 Hours**

**Max Marks: 80**

**Note:** Draw diagrams whenever necessary.

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**Write essay on any TWO of the following questions:**

**2 X 10 = 20**

1. How are sampling methods and sample size determination important in speech and hearing studies?
2. Discuss the advantages and limitations of observational research methods in audiology and speech language pathology?
3. Describe the process of formulating a research hypothesis in the context of speech-language pathology. What are the different types of hypothesis and how do they influence the research design?

**Write a short note on any FIVE of the following:**

**5 X 6 = 30**

4. How does proper documentation contribute to evidence based practice in audiology and speech language pathology?
5. Define mean, median and mode. Explain their significance in audiology research.
6. What is standard deviation? Why is it important in interpreting audiological data?
7. Differentiate between qualitative and quantitative data with examples from audiology.
8. What are the different scales of measurement used in audiological statistics (nominal, ordinal, interval and ratio).
9. What are the common types of errors (Type I and type II) in audiological statistical analysis?

**Write briefly on the following:**

**10 X 3 = 30**

10. Define normal distribution.
11. What does ANOVA stand for?
12. What is a correlation coefficient?
13. What is p-value?
14. What are the types of data scales?
15. Define independent variable.
16. What is the purpose of a control group?
17. What does validity mean?
18. What is purpose of informed consent?
19. Define cross-sectional study.

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