

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 0524]**

**MAY 2024**

**Sub. Code: 3111**

**M.Sc. SPEECH LANGUAGE PATHOLOGY  
FIRST SEMESTER (From 2023-2024 Batch onwards)  
PAPER I – RESEARCH METHODS, EPIDEMIOLOGY AND STATISTICS**

*Q.P. Code: 283111*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2x20=40)**

1. Explain various epidemiological measures and their uses in the field of speech-language pathology.
2. How do you critically analyze research articles in different areas of Speech-language Pathology? Explain with examples.

**II. Write notes on:**

**(10x6=60)**

1. Hypothesis testing and Level of significance.
2. Exploratory data analysis.
3. Multivariate analysis.
4. Path analysis.
5. Levels of research evidence.
6. Systematic review and meta-analysis.
7. Case-control studies.
8. Scope and function of epidemiology.
9. Ethical considerations in research.
10. Normative research.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 0525]**

**MAY 2025**

**Sub. Code:3111**

**M.Sc. SPEECH LANGUAGE PATHOLOGY  
FIRST SEMESTER (From 2023-2024 Batch onwards)  
PAPER I –RESEARCH METHODS, EPIDEMIOLOGY AND STATISTICS**

***Q.P. Code: 283111***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2x20=40)**

1. Discuss in detail about various study designs used in research methodology. As a researcher what study design you will choose to carry out research in Speech Therapy for Children with Cleft Lip. Why?
2. Explain in detail about parametric and non-parametric test with an example and write its application.

**II. Write notes on:**

**(10x6=60)**

1. Explain the experimental control in research with example.
2. Elaborate how the databases used for literature search.
3. Brief on the ANOVA and ANCOVA.
4. Explain the types of regression for categorical and continuous outcomes.
5. How do false positive and false negative results impact in research?
6. Elaborate the Mixed Method study design.
7. Difference between the IEC and IRB.
8. What is the difference between content and construct validity?
9. What test could be used to test the measures of association?
10. What are the techniques used for measuring correlation?

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 1025]**

**OCTOBER 2025**

**Sub. Code: 3111**

**M.Sc. SPEECH LANGUAGE PATHOLOGY  
FIRST SEMESTER (From 2023-2024 Batch onwards)  
PAPER I – RESEARCH METHODS, EPIDEMIOLOGY AND STATISTICS**

*Q.P. Code: 283111*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2x20=40)**

1. Enumerate various group research designs that can be used in the field of speech-language pathology and critically analyze them.
2. Explain various parametric and non-parametric tests available for testing hypothesis in detail with examples.

**II. Write notes on:**

**(10x6=60)**

1. Regression analysis.
2. Steps to evidence-based practice.
3. Levels of evidence in research studies.
4. Principle component analysis.
5. Application and impact of epidemiology on national and local policy.
6. Compare and contrast cross-sectional and longitudinal studies in speech-language pathology.
7. Probability concepts and models.
8. Type I and Type II errors.
9. Writing styles in research.
10. Experimental research.

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