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MA-2606

Sl. No. 0065

Total No. of Pages : 2

I Semester M.Sc. (SLP) Examination, June - 2022

(Scheme : CBCS)

**RESEARCH METHODS & STATISTICS IN SPEECH  
LANGUAGE & HEARING**

Time : 2 Hours

Max. Marks : 50

Instruction : Answer all questions.

- I. 1. a) Explain the types of variables used in research? [5]  
b) What are the differences between active & assigned variables? Explain with suitable examples. [5]  
c) What is an extraneous variable? Explain how do you control it in a research study with hypothetical example. [5]

OR

2. Write a research proposal of longitudinal design in the field of audiology/ Speech language pathology. [15]

- II. 3. Describe the steps involved in evidence based practice. [10]

OR

4. Explain various types of validity & reliability used in speech & hearing research. [10]

- III. 5. a) What do you mean by hypothesis testing? Use appropriate t-test to test the significance between 2 groups. [7]

Group1	7	5	3	4	6	7
Group2	8	9	8	7	10	9

- b) What is normal distribution of data? Write the general properties of normal distribution. [3]

OR

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6. a) Write the assumptions of ANOVA. [5]  
b) What is the need of post-hoc tests? Explain with suitable examples. [5]
- IV. 7. a) What is Friedman's test & when do you apply it? [5]  
b) What is a measure of agreement? Explain the procedure to calculate it. [5]  
c) Write a note on chi-square test. [5]

OR

8. a) Describe the application of non-parametric tests. [5]  
b) What is Kruskal - wallis test & how do you perform it? [7]  
c) What are the differences between association and correlation in statistics & research methods? [3]



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I Semester M.Sc. (SLP) Examination, June - 2022

(Scheme : CBCS)

**SPEECH LANGUAGE PATHOLOGY**

**Speech Production**

Time : 2 Hours

Max. Marks : 50

*Instruction : Answer as per instructed.*

- I. 1. a) Explain the mechanics of airflow. [5]  
b) Write a note on working principle and measurement obtained in wet spirometer. [5]

OR

2. Write a short note on :  
a) Bernoulli's principle in voice production. [5]  
b) Working of strain - gauge manometer. [5]

- II. 3. a) Discuss Source - Filter theory in detail. [10]  
b) Explain analog to digital conversion. [5]

OR

4. Write short notes on :  
a) Inverse Filtering [5]  
b) LTAS [5]  
c) Cepstral analysis [5]

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- III. 5. a) Discuss the acoustic characteristics of vowels and diphthongs. [10]  
b) Explain different types of spectrograms. [5]

OR

6. Discuss the acoustic characteristics of :  
a) Stop consonants [5]  
b) Fricatives [5]  
c) Nosals [5]

- IV. 7. Elaborate on the acoustic characteristics of cry in abnormal infants. [10]

OR

8. Explain the applications of :  
a) Speech synthesis [5]  
b) Spectrographic analysis in forensic sciences. [5]



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I Semester M.Sc. (SLP) Examination, June - 2022

(Scheme : CBCS)

**SPEECH LANGUAGE PATHOLOGY**

**Child Language Disorder**

Time : 2 Hours

Max. Marks : 50

UNIT - I

1. Critically evaluate biological maturation theory with a note on its implications to assessment & management of child language disorders. [10]

OR

2. Write a note on phonological, semantic & syntactic development in simultaneous bilingual children. [10]

UNIT - II

3. Describe the linguistic & literacy characteristics of different types of specific learning disability. [15]

OR

4. What are the different subtypes of attention deficit hyper activity disorders & elaborate on its associated behavioural & language characteristics. [15]

UNIT - III

5. Write short notes on : [3 × 5 = 15]  
a) LPT  
b) KLT  
c) ELST

OR

6. Write a note on implication of neuroimaging & cortical potentials in the assessment of child language disorders [15]

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**UNIT - IV**

7. Explain in detail the steps involved in any two techniques for intervention of child Language disorders which are evidence based. [10]

OR

8. a) Outline the general principle to management of child language disorders. [6]  
b) Write a note on cognitive linguistic approach for management of child language disorders. [4]



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**I Semester M.Sc. (SLP) Examination, June - 2022**

**(Scheme : CBCS)**

**SPEECH-LANGUAGE PATHOLOGY**

**NeuroScience of Speech and Language**

**Time : 2 Hours**

**Max. Marks : 50**

**Instruction: Answer all questions.**

- I. 1. a) Explain the origin and pathway of sensory and motor branches of Trigeminal and Facial, nerve. [10]  
b) Write a note on blood supply to the brain. [5]

OR

2. a) Write a note on importance of Basal Ganglia & cerebellum in motor control. [10]  
b) Describe about brain plasticity. [5]

- II. 3. a) Discuss the importance of sensory and motor examination in neuro diagnostic procedure. [10]  
b) Delineate the principles and applications of TMS. [5]

OR

4. a) Compare and contrast FMRI and Event related potentials. [10]  
b) Discuss the applications of priming in neurolinguistics research. [5]

- III. 5. Delineate the physiology of resting potential and action potential in nervous system. [10]

OR

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6. a) Describe the classification of neurotransmitters in human nervous system. [5]
- b) Explain the role of neurotransmitters in parkinson's disease and Alzheimer's disease. [5]

**IV. 7.** Discuss the cognitive changes with respect to aging. [10]

OR

8. Describe the effect of aging on speech and language and suggest the possible ways to prevent it. [10]





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**I Semester M.Sc. (SLP) I Year Examination, June - 2022**

**(Semester Scheme)**

**CLINICAL LINGUISTICS AND MULTILINGUAL ISSUES IN  
COMMUNICATION**

**Time : 2 Hours**

**Max. Marks : 50**

**Instruction: Answer all questions.**

**I. 1) Discuss the scope of Linguistics in the field of Speech Language Pathology. [10]**

**OR**

**2) Illustrate the Phonological disorders in case of hearing impaired children. [10]**

**II. 3) Explain the acquisition of morphology and syntax children. [15]**

**OR**

**4) Discuss the semantic disorders in speech and Language disordered groups. [15]**

**III. 5) Discuss the Pragmatic disorders with respect to clinical disorders. [15]**

**OR**

**6) Write short notes on: [3×5=15]**

**a) Registers**

**b) Pidgin**

**c) Language deficiency**

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- IV. 7) Discuss some of the cultural issues in verbal and non-verbal communication faced by clinicians while dealing with persons with speech-language disorders. [10]

OR

- 8) Write short notes on : [2×5=10]
- a) Tibeto - Burman Languages
  - b) Language and thought relationship

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