

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

**[AHS 0524]**

**MAY 2024**

**Sub. Code: 3112**

**M.Sc. SPEECH LANGUAGE PATHOLOGY  
FIRST SEMESTER (From 2023-2024 Batch onwards)  
PAPER II – SPEECH SCIENCE AND SPEECH PRODUCTION**

*Q.P. Code: 283112*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2x20=40)**

1. Explain the physiological aspects of speech production in detail with neat diagrams.
2. Describe applications of acoustic analysis in speech disorders in detail.

**II. Write notes on:**

**(10x6=60)**

1. Upper airway dynamics of speech sound production.
2. Aerodynamics of speech.
3. Aspects of prosody.
4. Characteristics and production of vocal music.
5. Softwares for acquisition and acoustic analysis of speech.
6. Techniques of digital signal processing.
7. Acoustic characteristics of vowels and diphthongs.
8. Effects of context and speaker on acoustic analysis of speech sounds.
9. Analysis by synthesis.
10. Forensic applications of speech sounds.

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

**[AHS 0525]**

**MAY 2025**

**Sub. Code:3112**

**M.Sc. SPEECH LANGUAGE PATHOLOGY  
FIRST SEMESTER (From 2023-2024 Batch onwards)  
PAPER II – SPEECH SCIENCE AND SPEECH PRODUCTION**

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**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2x20=40)**

1. Describe the acoustic theory of speech production in detail and critically evaluate it.
2. Describe speech synthesis and its application in detail.

**II. Write notes on:**

**(10x6=60)**

1. Lower airway dynamics of speech production.
2. Speech breathing.
3. Differentiate characteristics and production of vocal music and speech.
4. Functional Magnetic resonance imaging.
5. Stroboscope.
6. Types of spectrograms.
7. Acoustic characteristics of nasal consonants and fricatives.
8. Acoustic analysis and Forensic applications.
9. Infant cry analysis.
10. Acoustic characteristics of plosives.

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