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

[AHS 1022] **OCTOBER 2022** **Sub. Code:2805**

M.Sc. AUDIOLOGY
FIRST SEMESTER (From 2021-2022 onwards)
PAPER V – HEARING SCIENCES

Q.P. Code: 282805

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2x20=40)**

1. Explain various psychophysical methods for threshold estimation.
2. Elaborate and critically evaluate various theories of pitch perception with supporting studies.

II. Write notes on: **(10x6=60)**

1. Equal loudness contours.
2. Central masking.
3. Difference limen of frequency.
4. Auditory filters in normal hearing individuals.
5. Critical band concept.
6. Recruitment.
7. Overshoot phenomenon.
8. Temporal masking.
9. Pitch scales.
10. Long term average speech spectrum.

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

[AHS 1023] **OCTOBER 2023** **Sub. Code: 2805**

M.Sc. AUDIOLOGY
FIRST SEMESTER (From 2021-2022 onwards)
PAPER V – HEARING SCIENCES

Q.P. Code: 282805

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2x20=40)**

1. Explain various psychophysical methods for estimating threshold and evaluate the merits and demerits of each method.
2. Describe various factors affecting loudness perception in normal hearing individuals in detail.

II. Write notes on: **(10x6=60)**

1. Informational masking.
2. Clinical applications of non simultaneous masking.
3. Travelling wave theory and pitch perception.
4. Clinical application of critical band concept.
5. Methods to estimate loudness scale.
6. Relationship between pitch and loudness in individuals with normal hearing.
7. Long term average speech spectrum and its clinical applications.
8. Different types of filters and their properties.
9. Spectral analysis of complex sounds.
10. Compare and differentiate methods of measuring absolute and relative thresholds.

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

[AHS 0524] **MAY 2024** **Sub. Code: 2805**

M.Sc. AUDIOLOGY
FIRST SEMESTER (From 2021-2022 onwards)
PAPER V – HEARING SCIENCES

Q.P. Code: 282805

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2x20=40)**

1. Explain various factors affecting loudness perception in individuals with normal hearing and hearing impaired.
2. Elaborate different mechanisms involved in non peripheral masking with suitable examples.

II. Write notes on: **(10x6=60)**

1. Applications of signal detection theory.
2. Adaptive methods in psychophysical testing.
3. Loudness scaling.
4. Minimum audible field and minimum audible pressure.
5. Dynamic range in individuals with normal hearing and hearing impairment.
6. Power spectrum model.
7. Forward masking.
8. Factors affecting pitch perception.
9. Recruitment.
10. Frequency resolution in hearing impaired individuals.

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

[AHS 1024] **OCTOBER 2024** **Sub. Code: 2805**

M.Sc. AUDIOLOGY
FIRST SEMESTER (From 2021-2022 onwards)
PAPER V – HEARING SCIENCES

Q.P. Code: 282805

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2x20=40)**

1. Explain theory of signal detection in detail with examples.

2. Elaborate and critically evaluate various theories of loudness perception with supporting studies.

II. Write notes on: **(10x6=60)**

1. Equal loudness contours and loudness balancing.
2. Central masking and its application in audiometry.
3. Difference linen of intensity.
4. Auditory filters in cochlear hearing loss.
5. Parameters of complex sounds.
6. Spectrograms.
7. Pitch scales.
8. Forward and backward masking.
9. Informational masking.
10. Co-modulation masking release.

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

[AHS 0525] **MAY 2025** **Sub. Code:2805**

M.Sc. AUDIOLOGY
FIRST SEMESTER (From 2021-2022 onwards)
PAPER V – HEARING SCIENCES

Q.P. Code: 282805

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2x20=40)**

1. Theories of pitch perception in terms of simple signals.

2. Concept of recruitment and its impact on loudness perception in hearing impaired.

II. Write Short notes on: **(10x6=60)**

1. Describe methods to measure MAP and MAF.
2. With necessary examples explain the concept of sensitivity and criterion point.
3. Effect of frequency and intensity and DLI.
4. Types of filters.
5. Tests to assess cochlear dead regions.
6. Absolute and relative thresholds.
7. Overshoot phenomenon.
8. Central masking with its applications.
9. Complex signal perception in hearing impaired.
10. Buss – Florentine model of softness imperception.

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