

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

[AHS 1022]

OCTOBER 2022

Sub. Code:2802

M.Sc. AUDIOLOGY
FIRST SEMESTER (From 2021-2022 onwards)
PAPER II – TECHNOLOGY IN AUDIOLOGY

Q.P. Code: 282802

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2x20=40)

1. Elaborate the Principles of Neuro Imaging Techniques MRI, CT, PET, SPECT Interpretation and clinical implications.
2. Elaborate Tele technology definition, applications, technology, resources.

II. Write notes on:

(10x6=60)

1. Principles and methods of digital signal processing.
2. Transducers and signal generation.
3. Distance learning – multimedia meeting.
4. MATLAB, Adobe Audition, PRAAT Software packages and clinical application in Hearing Diagnostics.
5. Calibration and Maintenance of Audiological equipment.
6. Speech Processing and Synthesis models.
7. Basic principles of cepstral analysis, filtering low time, high time.
8. Working principles of EEG and evoked potential.
9. Technology available for intra-operative monitoring of sensory and motor functions.
10. Auditorium Acoustics

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

[AHS 0523]

MAY 2023

Sub. Code: 2802

**M.Sc. AUDIOLOGY DEGREE EXAMINATION
FIRST SEMESTER (From 2021-2022 onwards)
PAPER II – TECHNOLOGY IN AUDIOLOGY**

Q.P. Code: 282802

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2x20=40)

1. Elaborate Calibration and Maintenance of Different Audiological equipment.
2. Elaborate Tele technology definition, applications, technology, resources.

II. Write notes on:

(10x6=60)

1. Principles and methods of digital signal processing.
2. Tele technology role in remote consultation and data bases.
3. Computer based assessment and intervention programs relating to hearing.
4. Elaborate the Principles of Neuro Imaging Techniques MRI and CT scan.
5. Speaker and speech recognition system.
6. Basic principles of cepstral analysis, filtering low time, high time.
7. Working principles of EEG and evoked potential.
8. Technology available for intra-operative monitoring of sensory and motor C functions.
9. Distance Learning Multimedia Meeting.
10. Auditorium Acoustics.

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

[AHS 0524]

MAY 2024

Sub. Code: 2802

**M.Sc. AUDIOLOGY
FIRST SEMESTER (From 2021-2022 onwards)
PAPER II – TECHNOLOGY IN AUDIOLOGY**

Q.P. Code: 282802

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2x20=40)

1. Elaborate the basic Principles cepstral analysis, filtering Low time and High time for estimation of formant and pitch.
2. Elaborate Tele technology definition, applications, technology, resources.

II. Write notes on:

(10x6=60)

1. Principles and methods of digital signal processing.
2. Auditorium Acoustics.
3. Distance learning – multimedia meeting.
4. MATLAB, Adobe Audition, PRAAT Software packages and clinical application in Hearing Diagnostics.
5. Calibration and Maintenance of Audiological equipment.
6. Speech Processing and Synthesis models.
7. Principles of Neuro Imaging Techniques MRI, CT interpretation and clinical implications.
8. Working principles of EEG and evoked potential.
9. Technology available for intra-operative monitoring of sensory and motor functions.
10. Write a note on artificial neural network.

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

[AHS 0525]

MAY 2025

Sub. Code:2802

**M.Sc. AUDIOLOGY
FIRST SEMESTER (From 2021-2022 onwards)
PAPER II – TECHNOLOGY IN AUDIOLOGY**

Q.P. Code: 282802

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2x20=40)

1. Computer based assessment and intervention program relating to hearing.
2. Fundamentals of communication system.

II. Write notes on:

(10x6=60)

1. Advantages of digital signal processor.
2. Technology of channel separation.
3. Digital filtering techniques.
4. Speech synthesis methods.
5. Voice response system.
6. Speaker recognition system.
7. Digital Fourier transformation.
8. Signal acquisition techniques from electrodes.
9. Principles of generation of pure tone and clicks.
10. Editing audio files, saving and exporting.

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

[AHS 1025]

OCTOBER 2025

Sub. Code: 2802

**M.Sc. AUDIOLOGY
FIRST SEMESTER (From 2021-2022 onwards)
PAPER II – TECHNOLOGY IN AUDIOLOGY**

Q.P. Code: 282802

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2x20=40)

1. Calibration and Maintenance of Different Audiological equipment.
2. Elaborate Tele technology definition, applications, technology, resources.

II. Write notes on:

(10x6=60)

1. Digital modulation techniques.
2. Principles of signal generation.
3. Linear predictive coding.
4. Cepstral analysis.
5. PET and its working principle.
6. Multimedia meeting room.
7. MATLAB.
8. Amplitude compression.
9. Vectors and matrices.
10. Auditorium Acoustics.
