#### [LB 1012] OCTOBER 2012 Sub. Code: 3015 MASTER OF AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY

### (MASLP) DEGREE EXAMINATION SECOND YEAR

#### PAPER V – DIAGNOSTIC AUDIOLOGY

Q.P. Code: 433015

Time: 3 hours Maximum: 100 marks (180 Min)

#### Answer ALL questions in the same order.

I. Elaborate on :	Pages Time Marks (Max.)(Max.)		
1. Efforts of India in new born hearing screening.	17	40	20
2. Factors affecting immittance measurements.	17	40	20
II. Write Notes on :			
1. Characteristics of filtered clicks.	4	10	6
2. Common mode rejection.	4	10	6
3. What is specificity of a diagnostic test?	4	10	6
4. Recording of TEOAE.	4	10	6
5. Adaptation of auditory reflex.	4	10	6
6. Role of multicomponent/multifrequency in middle ear disorder	s. 4	10	6
7. Generators of ASSR.	4	10	6
8. T complex.	4	10	6
9. Audiological findings in auditory dysynchrony.	4	10	6
10. Role of audiologist in medico legal cases.	4	10	6

# [LD 1013] OCTOBER 2013 Sub. Code: 3015 MASTER OF AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY (MASLP) DEGREE EXAMINATION SECOND YEAR PAPER V – DIAGNOSTIC AUDIOLOGY

Q.P. Code: 433015

Time: Three hours Maximum: 100 Marks

**Answer All questions** 

I Elaborate on: (2x20 = 40)

1. Short notes on oto-acoustic emissions. Explain Distortion product oto-acoustic emission and its applications

2. Explain Auditory Late Latency response with its clinical application

#### II. Write Short notes on:

 $(10 \times 6 = 60)$ 

- 1. Common mode rejection
- 2. Public awareness programs related to hearing loss
- 3. Explain the multi component tympanometry
- 4. Factors affecting ABR
- 5. Explain any one non verbal test of (C) APD
- 6. Shortly explain Vestibular evoked Myogenic potential
- 7. Clinical application of Auditory steady state potential
- 8. Explain the possible presenting complaints and Audiological findings in Meniere's disease
- 9. Possible presenting complaints and audiological findings in patients with auditory neuropathy spectrum disorder
- 10. Challenges of Audiological practice in rural areas and methods to overcome it

[LE 0414] APRIL 2014 Sub. Code: 3015

# MASTER OF AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY (MASLP) DEGREE EXAMINATION SECOND YEAR PAPER V – DIAGNOSTIC AUDIOLOGY

Q.P. Code: 433015

Time: Three hours Maximum: 100 Marks

Answer All Questions
I Elaborate on:

[2x20 = 40]

1. Explain the generators, stimulus parameters, recording parameters and clinical application of Auditory Brainstem Response (ABR).

2. Explain the generators, stimulus parameters, recording parameters and clinical application of Auditory Late Latency Response (ALLR).

#### II. Write Short notes on:

 $(10 \times 6 = 60)$ 

- 1. Contra lateral suppression of OAE's with its clinical application
- 2. Artifacts in Event related potential
- 3. Clinical application of Electro Cochleography
- 4. Multi frequency tympanometry
- 5. Stimulus and recording parameters in Vestibular evoked myogenic potentials
- 6. Factors affecting Middle latency response
- 7. Explain one verbal test of (C) APD
- 8. Clinical application of ASSR
- 9. Audiological practice in ENT setup
- 10. Public awareness programs in relation to hearing loss

## MASTER OF AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY (MASLP) DEGREE EXAMINATION SECOND YEAR

### (2010-2011 Session onwards) PAPER V – DIAGNOSTIC AUDIOLOGY

Q.P. Code: 433015

Time: Three hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 20 = 40)$ 

1. Justify the need for comprehensive hearing evaluation in children with congenital hearing loss.

- 2. a) Justify the need for new born hearing screening.
  - b) Enumerate the recent trends in newborn hearing screening with studies.

II. Write notes on:  $(10 \times 6 = 60)$ 

- 1. Stimulus and recording protocol for a) ABR b) e ABR
- 2. What is multifrequency and multi component tympanometry and their findings in different disordes?
- 3. Explain any two event related potentials and its application.
- 4. Clinical application of acoustic reflexometry
- 5. Highlight the relationship between ESRT and behavioral levels in children with cochlear implant.
- 6. Differentiate between the middle latency response and early latency response.
- 7. Diagnostic protocol for ANSD.
- 8. Pathophysiology and clinical findings in
  - a) Miniere's disease b) Acoustic Neuroma
- 9. Explain in detail the different types of OAEs, its origin and interpretation.
- 10. Write a short note on VEMP.

#### MASTER OF AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY (MASLP) DEGREE EXAMINATION **SECOND YEAR**

#### (2010-2011 Session onwards) PAPER V – DIAGNOSTIC AUDIOLOGY

Q.P. Code: 433015

**Time: Three hours** Maximum: 100 Marks

 $(2 \times 20 = 40)$ I. Elaborate on:

1. a) Justify the need for an audiological test battery.

- b) Explain the audiological test employed for diagnosis and management of child with cochlear implant.
- 2. Write in detail about the recent advances in Diagnostic Audiology.

II. Write notes on:  $(10 \times 6 = 60)$ 

- 1. Detail the principle and application of acoustic reflexometry.
  - 2. Compare and contrast multi component and multi frequency Tympanometry.
  - 3. What are the clinical applications of cortical auditory evoked potentials?
  - 4. Detail the pathophysiology and audiological findings in a) Auditory dysynchrony b) Meniere's disease
  - 5. Explain the two non audiological tests used for diagnosing auditory disorders.
  - 6. Explain the test protocol for the following:
    - a) P 300
- b) MMN
- c) eABR
- 7. What is the interpretation of DPOAE and TEOAE?
- 8. Write note on the clinical application of SFOAE
- 9. Write a note on the objective measure used for fitting hearing aids in young children.
- 10. Justify the importance of Pure Tone Audiometry over electrophysiological tests.

Q.P. Code: 433015

Time: Three hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 20 = 40)$ 

1. Explain in detail about principles of recording and interpretation of electrophysiological test battery in clinical disorders.

2. Explain in detail about Audiological tests in diagnosis of auditory processing disorders.

II. Write notes on:  $(10 \times 6 = 60)$ 

1. Write note on subjective and objective calibration of Pure Tone Audiometry.

- 2. Write the clinical application of immittance audiometry.
- 3. Write the clinical application of nonaudiological tests.
- 4. Write the Pathophysiological and Audiological findings in Meniere's disease and ototoxicity.
- 5. Detail about principles of recording in MLR and P300.
- 6. Write a short notes on acoustic characteristics of pure tone and warble tones.
- 7. Differentiate between sensitivity and specificity in hearing screening.
- 8. What are the clinical application of low and high frequency tympanometry?
- 9. Write a note on medico-legal aspects of legislations related to field of audiology.
- 10. Detail about Audiological findings in any three middle ear diseases.

O.P. Code: 433015

Time: Three hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 20 = 40)$ 

1. Explain in detail about Audiological tests to evaluate CAPD.

2. Elaborate in detail about the electrophysiological tests.

II. Write notes on:  $(10 \times 6 = 60)$ 

- 2. Write notes on efforts of WHO and Government of India.
- 3. Detail about tympanometry.
- 4. Write notes on pathophysiological and audiological findings of ototoxicity.

1. Detail about signal acquisition technique from electrodes and transducers.

- 5. Write notes on subjective and objective measure used for fitting hearing aid in children.
- 6. Write short notes on protocols for OAE in cochlear pathology.
- 7. What are the clinical applications of ABR?
- 8. What are the factors affected while recording MLR and ASSR.
- 9. Write short notes on vestibular testing?
- 10. Detail about Audiological practice in neurological setup.

O.P. Code: 433015

Time: Three hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 20 = 40)$ 

1. Explain various test available evaluate auditory processing abilities in a 9 year old child with learning disability.

2. Explain clinical application of auditory brainstem response in detail.

II. Write notes on:  $(10 \times 6 = 60)$ 

1. Write notes on audiological findings in individual with menieres disease.

- 2. Compare P300 and Mismatch Negativity.
- 3. How cervical and ocular vestibular evoked potential vary in its characteristics? Write protocol to record each VEMPs.
- 4. Multi component tympanometry and its clinical application.
- 5. What are the clinical characteristics of auditory neuropathy spectrum disorders? Explain with a case example.
- 6. How do electrocochleography useful in differential diagnosis of various cochlear disorders?
- 7. Critically evaluate various tests available for estimating thresholds.
- 8. Write note on sensitivity, specificity, reliability and validity of a test.
- 9. What are the principles behind acoustic admittance measurement?
- 10. What are the pathophysiological changes that happen in otitis media? How does Immitance audiometry help to assess these changes?

O.P. Code: 433015

Time: Three hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 20 = 40)$ 

1. Discuss the role of evoked oto-acoustic emissions testing in monitoring of cochlear function.

2. Evoked potentials are typically chosen as the best available method for screening of hearing in newborns. Justify.

II. Write notes on:  $(10 \times 6 = 60)$ 

1. How are tuning fork tests useful in the practice of modern clinical audiology?

- 2. Dizziness handicap inventory.
- 3. Universal newborn hearing screening.
- 4. Redundancy in hearing.
- 5. Gaze (fixation) test.
- 6. Describe the plateau method for masking.
- 7. Role of evoked potential testing in surgical monitoring.
- 8. Peri-lymph fistula.
- 9. Auditory steady state response.
- 10. Explain the various types of speech audiometry measures used clinically.

O.P. Code: 433015

Time: Three hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 20 = 40)$ 

1. Explain the current issues related to the assessment auditory processing and the identification auditory processing disorders.

- 2. Describe the anatomical and physiological mechanisms responsible for oto-acoustic emissions, by telling how they are produced.
  - a) How are spontaneous emissions produced by the ear?
  - b) How are evoked emissions produced by the ear?

II. Write notes on:  $(10 \times 6 = 60)$ 

- 1. Describe underlying principles of cochlear dead region.
- 2. Vestibular assessment techniques.
- 3. Describe the pathway involved in the acoustic reflex response.
- 4. Signal averaging for extracting evoked responses from ongoing EEG.
- 5. How does middle ear dysfunction affect the immittance of the middle ear?
- 6. How do the qualities of speech audiometry materials used for testing impact outcome of scores?
- 7. Endo-lymphatic hydrops.
- 8. Benign paroxysmal positional vertigo.
- 9. Superior semicircular canal dehiscence.
- 10. Describe the making dilemma.

O.P. Code: 433015

Time: Three hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 20 = 40)$ 

1. Write about the calibration of transducers used in clinical audiometers.

2. What are the sources of artifacts recorded during cortical potentials and discuss their characteristics and methods used to reduce or eliminate them?

II. Write notes on:  $(10 \times 6 = 60)$ 

- 1. Compare and contrast P300 and MMN.
- 2. Pathological and audiological findings in Otitis Media.
- 3. Impact of middle ear pathology on recording OAEs.
- 4. Concept of Universal New-born Hearing Screening.
- 5. Compare and contrast CT and MRI.
- 6. Explain with case examples how multi-component and multi-frequency tympanometry will be useful in diagnosing different middle ear conditions.
- 7. What are endocochlear potentials and write about the test to assess these potentials?
- 8. Discuss the need for test battery approach in the field of audiology for auditory diagnosis.
- 9. Subjective vestibular assessment.
- 10. Sensitivity vs specificity.

O.P. Code: 433015

Time: Three hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 20 = 40)$ 

1. Explain the various test to assess the balance function in children.

2. Design a test battery for a child of 10 years who is having difficulty in understanding speech in noisy situation, shows poor academic performance and diagnosed with Learning Disability.

II. Write notes on:  $(10 \times 6 = 60)$ 

- 1. Rationale behind Multi frequency Multicomponent tympanometry.
- 2. Efferent system and contralateral suppression of OAE.
- 3. Test protocol for differential diagnosis of Auditory Neuropathy Spectrum Disorder.
- 4. Differential amplification.
- 5. Clinical application of Electrically Evoked Auditory Brainstem Response.
- 6. Protocol for New born hearing screening.
- 7. Generators of LLR peaks.
- 8. Stimulus protocol and clinical application of Bone Conduction ABR.
- 9. Clinical application of Cortical Auditory Evoked Potentials.
- 10. Types of Auditory Processing Disorders.

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

[AHS 0321] MARCH 2021 Sub. Code: 3015

# (OCTOBER 2020 EXAM SESSION) MASTER OF AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY SECOND YEAR (From 2010-2011 onwards) PAPER V – DIAGNOSTIC AUDIOLOGY

Q.P. Code: 433015

Time: Three hours Answer ALL Questions Maximum: 100 Marks

I. Elaborate on: (2 X 10=20)

1. Origin, classification, instrumentation, and recording of OAEs.

2. Explain Vestibular testing in detail.

II. Write notes on: (10 X 6=60)

- 1. Explain the factors affecting the recording of N400.
- 2. Audiological practice in Neurological set-ups.
- 3. Genetic counseling.
- 4. Common mode rejection.
- 5. Cost benefit analysis.
- 6. FFR.
- 7. Efforts of WHO and Govt. of India for hearing screening.
- 8. Factors affecting recording of ASSR and interpretation of ASSR.
- 9. Acoustic neuroma.
- 10. Temporal summation and binaural summation of Acoustic Reflex.

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

[AHS 0122] JANUARY 2022 Sub. Code: 3015 (OCTOBER 2021 EXAM SESSION)

## MASTER OF AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY SECOND YEAR (From 2010-2011 onwards) PAPER V – DIAGNOSTIC AUDIOLOGY

O.P. Code: 433015

Time: Three hours Answer ALL Questions Maximum: 100 Marks

I. Elaborate on: (2 X 20=40)

1. Explain the Origin of Oto-Acoustic Emissions. Describe the Interpretation, and Clinical application of DPOAEs and TEOAEs.

2. Discuss in detail the generators, factors affecting recording and interpretation of MMN and P300.

II. Write notes on: (10 X 6=60)

- 1. Calibration of puretones.
- 2. Variables affecting tympanometry.
- 3. Explain Common mode rejection, and artefact rejection.
- 4. Cost benefit analysis.
- 5. Interpretation and clinical application of Electrical ABR.
- 6. Legislations related to the field of audiology.
- 7. Audiological practice in ENT set up.
- 8. Factors affecting recording and interpretation of ENG.
- 9. Pathophysiological and audiological findings in Meniere's disease.
- 10. Multi frequency tympanometry.

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

[AHS 1022] OCTOBER 2022 Sub. Code: 3015

## MASTER OF AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY SECOND YEAR (From 2010-2011 onwards) PAPER V – DIAGNOSTIC AUDIOLOGY

Q.P. Code: 433015

Time: Three hours Answer ALL Questions Maximum: 100 Marks

I. Elaborate on: (2 X 20=40)

1. Installation and calibration of Audiometer.

2. Explain the early AEPs in detail.

II. Write notes on: (10 X 6=60)

- 1. Explain the principles and application of Acoustic reflexometry.
- 2. Public awareness programs.
- 3. Factors affecting recording and interpretation of SN10.
- 4. Comprehensive report writing in Audiology.
- 5. Explain the Generators and recording of LLR.
- 6. Auditory dysynchrony.
- 7. Tests to evaluate tinnitus and hyperacusis.
- 8. Ototoxicity.
- 9. Electrical ABR.
- 10. Clinical applications of Immitance.