Reg. No. | | | | | | | | | | | |

AH 201

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Neurophysiology of Hearing

Time : 3 Hours Max. Marks : 70

UNIT – I

1. With a neat diagram explain anatomy of superior olivary complex. **14**

OR

2. a) Explain anatomy of inferior colliculus. **7**
   b) Explain anatomy of medial geniculate body. **7**

UNIT – II

3. a) Explain coding of vowels in auditory nerve. **7**
   b) Explain coding of amplitude and frequency modulations in auditory nerve. **7**

OR

4. Write an essay on nonlinearity in auditory nerve. **14**

UNIT – III

5. a) Explain tonotopic organization in inferior colliculus. **7**
   b) Explain coding of simple acoustic signals in superior olivary complex. **7**

OR

6. Explain coding of various features of speech in cochlear nucleus. **14**

P.T.O.

UNIT – IV

7. a) Explain role of cortex in localization. **7**

   b) Explain coding of complex signals in auditory cortex. **7**

OR

8. Write an essay on anatomy of auditory cortex. **14**

UNIT – V

9. Highlight the function of efferent pathways in auditory system. **14**

OR

10. Compare and contrast lateral and medial olivocochlear bundle. **14**

Reg. No. | | | | | | | | | | | |

AH 201

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Neurophysiology of Hearing

Time : 3 Hours Max. Marks : 70

UNIT – I

1. With a neat diagram explain anatomy of superior olivary complex. **14**

OR

2. a) Explain anatomy of inferior colliculus. **7**
   b) Explain anatomy of medial geniculate body. **7**

UNIT – II

3. a) Explain coding of vowels in auditory nerve. **7**
   b) Explain coding of amplitude and frequency modulations in auditory nerve. **7**

OR

4. Write an essay on nonlinearity in auditory nerve. **14**

UNIT – III

5. a) Explain tonotopic organization in inferior colliculus. **7**
   b) Explain coding of simple acoustic signals in superior olivary complex. **7**

OR

6. Explain coding of various features of speech in cochlear nucleus. **14**

P.T.O.

UNIT – IV

7. a) Explain role of cortex in localization. **7**

   b) Explain coding of complex signals in auditory cortex. **7**

OR

8. Write an essay on anatomy of auditory cortex. **14**

UNIT – V

9. Highlight the function of efferent pathways in auditory system. **14**

OR

10. Compare and contrast lateral and medial olivocochlear bundle. **14**

Reg. No. | | | | | | | | | | | |

AH 201

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Neurophysiology of Hearing

Time : 3 Hours Max. Marks : 70

UNIT – I

1. With a neat diagram explain anatomy of superior olivary complex. **14**

OR

2. a) Explain anatomy of inferior colliculus. **7**
   b) Explain anatomy of medial geniculate body. **7**

UNIT – II

3. a) Explain coding of vowels in auditory nerve. **7**
   b) Explain coding of amplitude and frequency modulations in auditory nerve. **7**

OR

4. Write an essay on nonlinearity in auditory nerve. **14**

UNIT – III

5. a) Explain tonotopic organization in inferior colliculus. **7**
   b) Explain coding of simple acoustic signals in superior olivary complex. **7**

OR

6. Explain coding of various features of speech in cochlear nucleus. **14**

P.T.O.

UNIT – IV

7. a) Explain role of cortex in localization. **7**

   b) Explain coding of complex signals in auditory cortex. **7**

OR

8. Write an essay on anatomy of auditory cortex. **14**

UNIT – V

9. Highlight the function of efferent pathways in auditory system. **14**

OR

10. Compare and contrast lateral and medial olivocochlear bundle. **14**

Reg. No. | | | | | | | | | | | |

AH 201

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Neurophysiology of Hearing

Time : 3 Hours Max. Marks : 70

UNIT – I

1. With a neat diagram explain anatomy of superior olivary complex. **14**

OR

2. a) Explain anatomy of inferior colliculus. **7**
   b) Explain anatomy of medial geniculate body. **7**

UNIT – II

3. a) Explain coding of vowels in auditory nerve. **7**
   b) Explain coding of amplitude and frequency modulations in auditory nerve. **7**

OR

4. Write an essay on nonlinearity in auditory nerve. **14**

UNIT – III

5. a) Explain tonotopic organization in inferior colliculus. **7**
   b) Explain coding of simple acoustic signals in superior olivary complex. **7**

OR

6. Explain coding of various features of speech in cochlear nucleus. **14**

P.T.O.

UNIT – IV

7. a) Explain role of cortex in localization. **7**

   b) Explain coding of complex signals in auditory cortex. **7**

OR

8. Write an essay on anatomy of auditory cortex. **14**

UNIT – V

9. Highlight the function of efferent pathways in auditory system. **14**

OR

10. Compare and contrast lateral and medial olivocochlear bundle. **14**

Reg. No. | | | | | | | | | | | |

AH 202

II Semester M.Sc. Degree Examination, July/August 2024

(Semester Scheme)

AUDIOLOGY

Electrophysiological Assessment

Time : 3 Hours Max. Marks : 70

UNIT – 1

1. Write a short note on :

   a) Dipole orientation of scalp AEP recording. **7**

   b) Neurophysiological requirement for recording AEP's. **7**

   OR

2. Write an essay on classification of scalp recorded AEPs. **14**

UNIT – 2

3. Describe the stimuli, acquisition parameters and response obtained in a Frequency Following Response. **14**

   OR

4. Why a combination of click and tone burst recording is used in evaluating paediatric population ? Justify. **14**

UNIT – 3

5. How does the middle latency response vary with different stimuli and state of the subject ? **14**

   OR

6. List out the clinical applications of Auditory Steady State Response. **14**

P.T.O.

UNIT – 4

7. Describe stimulus, acquisition parameters and instructions to subjects for recording P300 and MMN. **14**

OR

8. With support from literature, substantiate the clinical applications of auditory P300. **14**

UNIT – 5

9. Write an essay on standard guidelines used for intra-operative monitoring of auditory system. **14**

OR

10. Write a short note on :

    a) Electro neurenography. **7**

    b) Requirements for recording intra-operative ABRs. **7**

Reg. No. | | | | | | | | | | | |

AH 202

II Semester M.Sc. Degree Examination, July/August 2024

(Semester Scheme)

AUDIOLOGY

Electrophysiological Assessment

Time : 3 Hours Max. Marks : 70

UNIT – 1

1. Write a short note on :

   a) Dipole orientation of scalp AEP recording. **7**

   b) Neurophysiological requirement for recording AEP's. **7**

   OR

2. Write an essay on classification of scalp recorded AEPs. **14**

UNIT – 2

3. Describe the stimuli, acquisition parameters and response obtained in a Frequency Following Response. **14**

   OR

4. Why a combination of click and tone burst recording is used in evaluating paediatric population ? Justify. **14**

UNIT – 3

5. How does the middle latency response vary with different stimuli and state of the subject ? **14**

   OR

6. List out the clinical applications of Auditory Steady State Response. **14**

P.T.O.

UNIT – 4

7. Describe stimulus, acquisition parameters and instructions to subjects for recording P300 and MMN. **14**

OR

8. With support from literature, substantiate the clinical applications of auditory P300. **14**

UNIT – 5

9. Write an essay on standard guidelines used for intra-operative monitoring of auditory system. **14**

OR

10. Write a short note on :

    a) Electro neurenography. **7**

    b) Requirements for recording intra-operative ABRs. **7**

Reg. No. | | | | | | | | | | |

AH 202

II Semester M.Sc. Degree Examination, July/August 2024

(Semester Scheme)

AUDIOLOGY

Electrophysiological Assessment

Time : 3 Hours Max. Marks : 70

UNIT – 1

1. Write a short note on :

   a) Dipole orientation of scalp AEP recording. **7**

   b) Neurophysiological requirement for recording AEP's. **7**

   OR

2. Write an essay on classification of scalp recorded AEPs. **14**

UNIT – 2

3. Describe the stimuli, acquisition parameters and response obtained in a Frequency Following Response. **14**

   OR

4. Why a combination of click and tone burst recording is used in evaluating paediatric population ? Justify. **14**

UNIT – 3

5. How does the middle latency response vary with different stimuli and state of the subject ? **14**

   OR

6. List out the clinical applications of Auditory Steady State Response. **14**

P.T.O.

UNIT – 4

7. Describe stimulus, acquisition parameters and instructions to subjects for recording P300 and MMN. **14**

OR

8. With support from literature, substantiate the clinical applications of auditory P300. **14**

UNIT – 5

9. Write an essay on standard guidelines used for intra-operative monitoring of auditory system. **14**

OR

10. Write a short note on :

    a) Electro neurenography. **7**

    b) Requirements for recording intra-operative ABRs. **7**

Reg. No. | | | | | | | | | | | |

AH 202

II Semester M.Sc. Degree Examination, July/August 2024

(Semester Scheme)

AUDIOLOGY

Electrophysiological Assessment

Time : 3 Hours Max. Marks : 70

UNIT – 1

1. Write a short note on :
   a) Dipole orientation of scalp AEP recording. **7**
   b) Neurophysiological requirement for recording AEP's. **7**

   OR

2. Write an essay on classification of scalp recorded AEPs. **14**

UNIT – 2

3. Describe the stimuli, acquisition parameters and response obtained in a Frequency Following Response. **14**

   OR

4. Why a combination of click and tone burst recording is used in evaluating paediatric population ? Justify. **14**

UNIT – 3

5. How does the middle latency response vary with different stimuli and state of the subject ? **14**

   OR

6. List out the clinical applications of Auditory Steady State Response. **14**

P.T.O.

UNIT – 4

7. Describe stimulus, acquisition parameters and instructions to subjects for recording P300 and MMN. **14**

OR

8. With support from literature, substantiate the clinical applications of auditory P300. **14**

UNIT – 5

9. Write an essay on standard guidelines used for intra-operative monitoring of auditory system. **14**

OR

10. Write a short note on :

    a) Electro neurenography. **7**

    b) Requirements for recording intra-operative ABRs. **7**

Reg. No. | | | | | | | | | | | |

AH 203

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Auditory Perception

Time : 3 Hours Max. Marks : 70

UNIT – I

1. Compare the detection and discrimination of gaps in auditory signals between individuals with normal hearing and those with hearing impairment. **14**

OR

2. Compare and contrast at least one models of temporal processing in individuals with normal hearing and those with hearing impairment. **14**

UNIT – II

3. a) Explain the role of spectral cues in auditory object perception. **8**

   b) Describe the importance of harmonicity and spectral shape in the perception of auditory objects. **6**

OR

4. Discuss the concept of timbre perception. **14**

UNIT – III

5. Describe the various methods used to study auditory adaptation. **14**

OR

6. a) Explain the neurophysiological mechanisms underlying auditory adaptation. **8**

   b) How do individual differences, such as age and auditory health, impact auditory adaptation ? **6**

P.T.O.

UNIT – IV

7. a) Describe the cues used by the auditory system to perceive the distance of a sound source. **7**

   b) Analyse the impact of hearing loss on the ability to lateralize sounds. **7**

OR

8. Explain the concept of monaural localization and its underlying mechanisms. How does monaural localization differ from binaural localization ? **14**

UNIT – V

9. a) Describe the role of Interaural Time Differences (ITDs) and Interaural Level Differences (ILDs) in binaural hearing. **8**

   b) What experimental methods are used to measure MLD ? Discuss the relevance of these methods in auditory research. **6**

OR

10. Discuss the various factors that affect the perception of music. **14**

Reg. No. | | | | | | | | | | | |

AH 203

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Auditory Perception

Time : 3 Hours Max. Marks : 70

UNIT – I

1. Compare the detection and discrimination of gaps in auditory signals between individuals with normal hearing and those with hearing impairment. **14**

OR

2. Compare and contrast at least one models of temporal processing in individuals with normal hearing and those with hearing impairment. **14**

UNIT – II

3. a) Explain the role of spectral cues in auditory object perception. **8**

   b) Describe the importance of harmonicity and spectral shape in the perception of auditory objects. **6**

OR

4. Discuss the concept of timbre perception. **14**

UNIT – III

5. Describe the various methods used to study auditory adaptation. **14**

OR

6. a) Explain the neurophysiological mechanisms underlying auditory adaptation. **8**

   b) How do individual differences, such as age and auditory health, impact auditory adaptation ? **6**

P.T.O.

UNIT – IV

7. a) Describe the cues used by the auditory system to perceive the distance of a sound source. **7**

   b) Analyse the impact of hearing loss on the ability to lateralize sounds. **7**

OR

8. Explain the concept of monaural localization and its underlying mechanisms. How does monaural localization differ from binaural localization ? **14**

UNIT – V

9. a) Describe the role of Interaural Time Differences (ITDs) and Interaural Level Differences (ILDs) in binaural hearing. **8**

   b) What experimental methods are used to measure MLD ? Discuss the relevance of these methods in auditory research. **6**

OR

10. Discuss the various factors that affect the perception of music. **14**

Reg. No. | | | | | | | | | | | |

AH 203

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Auditory Perception

Time : 3 Hours Max. Marks : 70

UNIT – I

1. Compare the detection and discrimination of gaps in auditory signals between individuals with normal hearing and those with hearing impairment. 14

OR

2. Compare and contrast at least one models of temporal processing in individuals with normal hearing and those with hearing impairment. 14

UNIT – II

3. a) Explain the role of spectral cues in auditory object perception. 8

   b) Describe the importance of harmonicity and spectral shape in the perception of auditory objects. 6

OR

4. Discuss the concept of timbre perception. 14

UNIT – III

5. Describe the various methods used to study auditory adaptation. 14

OR

6. a) Explain the neurophysiological mechanisms underlying auditory adaptation. 8

   b) How do individual differences, such as age and auditory health, impact auditory adaptation ? 6

P.T.O.

UNIT – IV

7. a) Describe the cues used by the auditory system to perceive the distance of a sound source. 7

   b) Analyse the impact of hearing loss on the ability to lateralize sounds. 7

OR

8. Explain the concept of monaural localization and its underlying mechanisms. How does monaural localization differ from binaural localization ? 14

UNIT – V

9. a) Describe the role of Interaural Time Differences (ITDs) and Interaural Level Differences (ILDs) in binaural hearing. 8

   b) What experimental methods are used to measure MLD ? Discuss the relevance of these methods in auditory research. 6

OR

10. Discuss the various factors that affect the perception of music. 14

Reg. No. | | | | | | | | | | | |

AH 203

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Auditory Perception

Time : 3 Hours Max. Marks : 70

UNIT – I

1. Compare the detection and discrimination of gaps in auditory signals between individuals with normal hearing and those with hearing impairment. **14**

OR

2. Compare and contrast at least one models of temporal processing in individuals with normal hearing and those with hearing impairment. **14**

UNIT – II

3. a) Explain the role of spectral cues in auditory object perception. **8**

   b) Describe the importance of harmonicity and spectral shape in the perception of auditory objects. **6**

OR

4. Discuss the concept of timbre perception. **14**

UNIT – III

5. Describe the various methods used to study auditory adaptation. **14**

OR

6. a) Explain the neurophysiological mechanisms underlying auditory adaptation. **8**

   b) How do individual differences, such as age and auditory health, impact auditory adaptation ? **6**

P.T.O.

UNIT – IV

7. a) Describe the cues used by the auditory system to perceive the distance of a sound source. **7**

   b) Analyse the impact of hearing loss on the ability to lateralize sounds. **7**

OR

8. Explain the concept of monaural localization and its underlying mechanisms. How does monaural localization differ from binaural localization ? **14**

UNIT – V

9. a) Describe the role of Interaural Time Differences (ITDs) and Interaural Level Differences (ILDs) in binaural hearing. **8**

   b) What experimental methods are used to measure MLD ? Discuss the relevance of these methods in auditory research. **6**

OR

10. Discuss the various factors that affect the perception of music. **14**

Reg. No. | | | | | | | | | | | |

AS 204

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Genetics of Hearing and Pediatric Audiology

Time : 3 Hours Max. Marks : 70

UNIT – 1

1. Explain different pattern of inheritance in humans. **14**

OR

2. Write a note on DNA, Gene and chromosome with a neat diagram. **14**

UNIT – 2

3. Discuss the importance of genetic evaluation in hearing impaired person. **14**

OR

4. Explain the genotype and phenotypes of syndromic hearing loss. **14**

UNIT – 3

5. Elaborate on international protocol for hearing screening in neonates and infants. **14**

OR

6. Discuss the procedure of screening for hearing impairment in school children. **14**

UNIT – 4

7. Elaborate on different causes for acquired hearing loss in children. **14**

OR

8. Explain the principle, procedure and interpretation of Behavioural Observation Audiometry (BOA) in infants. **14**

UNIT – 5

9. Discuss on different management options available for children with unilateral hearing loss. **14**

OR

10. Explain the auditory problems faced by children with conductive hearing loss. **14**

Reg. No. | | | | | | | | | | | |

AS 204

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Genetics of Hearing and Pediatric Audiology

Time : 3 Hours | Max. Marks : 70

UNIT – 1

1. Explain different pattern of inheritance in humans. **14**

OR

2. Write a note on DNA, Gene and chromosome with a neat diagram. **14**

UNIT – 2

3. Discuss the importance of genetic evaluation in hearing impaired person. **14**

OR

4. Explain the genotype and phenotypes of syndromic hearing loss. **14**

UNIT – 3

5. Elaborate on international protocol for hearing screening in neonates and infants. **14**

OR

6. Discuss the procedure of screening for hearing impairment in school children. **14**

UNIT – 4

7. Elaborate on different causes for acquired hearing loss in children. **14**

OR

8. Explain the principle, procedure and interpretation of Behavioural Observation Audiometry (BOA) in infants. **14**

UNIT – 5

9. Discuss on different management options available for children with unilateral hearing loss. **14**

OR

10. Explain the auditory problems faced by children with conductive hearing loss. **14**

Reg. No. | | | | | | | | | | | |

AS 204

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Genetics of Hearing and Pediatric Audiology

Time : 3 Hours | Max. Marks : 70

UNIT – 1

1. Explain different pattern of inheritance in humans. **14**

OR

2. Write a note on DNA, Gene and chromosome with a neat diagram. **14**

UNIT – 2

3. Discuss the importance of genetic evaluation in hearing impaired person. **14**

OR

4. Explain the genotype and phenotypes of syndromic hearing loss. **14**

UNIT – 3

5. Elaborate on international protocol for hearing screening in neonates and infants. **14**

OR

6. Discuss the procedure of screening for hearing impairment in school children. **14**

UNIT – 4

7. Elaborate on different causes for acquired hearing loss in children. **14**

OR

8. Explain the principle, procedure and interpretation of Behavioural Observation Audiometry (BOA) in infants. **14**

UNIT – 5

9. Discuss on different management options available for children with unilateral hearing loss. **14**

OR

10. Explain the auditory problems faced by children with conductive hearing loss. **14**

Reg. No. | | | | | | | | | | | |

AS 204

II Semester M.Sc. Degree Examination, July/August 2024
(Semester Scheme)
AUDIOLOGY
Genetics of Hearing and Pediatric Audiology

Time : 3 Hours Max. Marks : 70

UNIT – 1

1. Explain different pattern of inheritance in humans. **14**

OR

2. Write a note on DNA, Gene and chromosome with a neat diagram. **14**

UNIT – 2

3. Discuss the importance of genetic evaluation in hearing impaired person. **14**

OR

4. Explain the genotype and phenotypes of syndromic hearing loss. **14**

UNIT – 3

5. Elaborate on international protocol for hearing screening in neonates and infants. **14**

OR

6. Discuss the procedure of screening for hearing impairment in school children. **14**

UNIT – 4

7. Elaborate on different causes for acquired hearing loss in children. **14**

OR

8. Explain the principle, procedure and interpretation of Behavioural Observation Audiometry (BOA) in infants. **14**

UNIT – 5

9. Discuss on different management options available for children with unilateral hearing loss. **14**

OR

10. Explain the auditory problems faced by children with conductive hearing loss. **14**
