

MSC AD/AC 010

III Semester M.Sc. (Aud.) Examination, January 2009 (Semester Scheme)

Audiology

Psychophysics of Audition in the Hearing Impaired

Time: 3 Hours

Max, Marks: 80

Instruction : Answer all questions,

- I. 1) Describe the adaptive procedures you would use with adults and children to obtain absolute threshold and differential threshold. **i** 6

OR

- 2) Write a note on factors affecting loudness perception in individuals with hearing impairment. 16

- II. 3) Studies of pitch perception of complex tones in hearing impaired give an insight into coding strategies by auditory system. Discuss. 16

OR

- 4) a) Pitch discrimination gives more information than the audiogram about status of cochlea. Discuss. 10

- b) Write a note on pitch discrimination in individuals with cochlear implants. 6

- III. 5) Compare temporal perception in normal and hearing impaired populations. 16

OR

- 6) Write a note on :
a) Temporal integration in cochlear pathologies. 10

- b) Auditory numerosity. 6

- IV. 7) Compare the TEN test and psychophysical tuning curves to assess status of the cochlea. 16

OR

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8) Write an essay on factors that affect the shape of the psychophysical tuning curve. 16

V. 9) a) Write a note on the relationship of temporal perception to localization. 8

b) Describe the effect of two ear level hearing aids on binaural hearing. 8

OR

10) Compare the factors affecting binaural hearing in conductive, sensory and neural hearing loss. 16

III Semester M.Sc. (Aud.) Examination, January 2009
(Integrated Semester Scheme)
Audiology
Seminars in Assessment of the Hearing Impaired

Time : 3 Hours

Max. Marks : 80

Instruction : All Units are compulsory,

- I. 1) a) Describe in brief the audiological findings and pathophysiology affecting the middle ear system. 10
b) Write notes on "genetic counseling" 6

OR

- 2) a) Long-standing conductive hearing loss leads to central auditory processing disorder. Discuss. 8
b) Elaborate on the various audiological findings in genetic hearing loss. 8
- II. 3) a) Correlate the audiological and histopathological findings in sudden sensorineural hearing loss, 8
b) A patient complains of vomiting, hearing loss and tinnitus following episodes or giddiness. What audiological and non-audiological tests will you use to arrive at the diagnosis ? 8

OR

- 4) a) Discuss the audiological and pathophysiological findings in auditory neuropathy. 8
b) Describe the audiological and histopathological findings in NIHL. 8
- III. 5) a) Describe audiological test battery that you will adopt for evaluation of a child with autism. 8
b) Describe the modification in audiological test procedures for geriatric population. 8

OR

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- 6) a) Describe the various tests for hyperacusis. 8
b) How does the audiological evaluation of cerebral palsy differ from that of deaf blind individual ? 8

- IV. 7) a) Describe the procedures and interpretation of caloric test. 8
b) "ENG is an essential tool in audiology". Discuss 8

OR

- 8) a) Describe tinnitus masking curves and its application in rehabilitation. 8
b) Discuss the origin of tinnitus with appropriate studies. 8

- V. 9) a) Describe the application of non-audiological in audiology. 8
b) Write notes on MRI. 8

OR

- 10) a) Elaborate on "Principles of X-ray and CT Scan". 8
b) Enlist the nonaudiological tests that you would perform on subjects with meningitis and acoustic neuroma. 8

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III Semester M.Sc. (Aud.) Examination, January 2009

(Integrated Semester Scheme)

Audiology

Speech Perception

Time : 3 Hours

Max. Marks : 80

Instruction ; Answer all questions.

- I. 1) Write notes on the relation between the production and perception for each of the following : Vowels and stops. 16

OR

- 2) a) What kind of speech synthesis method would you recommend to use while carrying out a study on the effect of F1 cut-back on speech perception? Justify your choice of method. 8

- b) Briefly describe the method recommended by you. 8

- II. 3) Compare the place of articulation cues used for the perception of stops, fricatives and nasals. 16

OR

- 4) Describe the utility of transition cues in the perception of different classes of speech sounds. 16

- III. 5) Give an account of how performance on a dichotic task would vary depending on the pairs of phonemes being presented. 16

OR

- 6) Give explanations regarding the lag effect seen during dichotic speech perception. 16

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IV. 7) Write on categorical and continuous speech perception in relation to short-term memory. 16

OR

8) Critically evaluate the dual coding theory. 16

V. 9) Compare speech perception of infants with that of adults. 16

OR

10) a) Briefly describe the theories of infant speech perception. 8

b) In your opinion which theory explains infant speech perception the best. Justify your choice. 8

MSC AD/AC 040

III Semester M.Sc. (Aud.) Examination, January 2009
(Integrated Semester Scheme)
Audiology
Electrophysiological Assessment of the Auditory System

Time : 3 Hours

Max. Marks : 80

Instructions : Answer all questions. All questions carry equal marks.

- I. 1. Describe the instrumentation and test set-up required for auditory electrophysiologic investigations. 16
- OR
2. List out merits and demerits of EcochG, ABR, AMLR and ALLR 16
- II. 3. Discuss in detail the parametric variables of ABR and their clinical significance. 16
- OR
4. "ABR though used extensively is of less significance for neonatal Testing" - do you agree? Elaborate this statement with your view points. 16
- III. 5. Describe the test protocol used and the interpretation of middle latency response with proper clinical examples. 16
- OR
6. A long latency response has a very limited use as a routine diagnostic Test - Justify this with your view points. 16
- IV. 7. List out and elaborate on clinical and forensic utilities of endogenous evoked potentials like P₃₀₀ and MMN. 16
- OR
8. Give the origin, rationale and test protocol for P₃₀₀ and MMN. 16
- V. 9. Write an essay on recent advances in electrophysiologic auditory tests. 16
- OR
10. Inspite of invention of many electrophysiological tests - auditory differentiation of clinical groups is still dependent upon subjective judgement of audiologists - Elaborate this with proper justification, 16

MSCAD/AC 070

**III Semester M.Sc. (Audiology) Examination, January 2009
(Semester Scheme)**

**Audiology
Seminars in Rehabilitative Audiology**

Time : 3 Hours

Max. Marks : 80

Instruction : Answer all questions.

- I. 1) Discuss how recent advances in hearing aid technology have addressed issues related to decreased audibility, dynamic range and frequency resolution in persons with hearing impairment. 16

OR

- 2) The reduction in the size of the major components of hearing aids has not compromised effective amplification. Discuss. 16

- II. 3) a) Describe the advantages and limitations of the different types of signals that are used to analyze electroacoustic performance of hearing aids. 10

- b) What is the role of group delay and phase delay in hearing aid fitting ? 6

OR

- 4) a) Discuss the relationship between insertion gain, coupler gain and ear simulator gain. 8

- b) Measurement of electroacoustic performance of ALDs is not required. Discuss. 8

- III. 5) a) When should an audiologist encourage a patient to use a hearing aid ? 8

- b) Discuss the factors which contraindicate the use of hearing aids. 8

OR

- 6) Describe any two prescriptive procedures for non-linear hearing aids. 16

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IV. 7) Given below are some goals for auditory habilitation of infants. Describe 3 strategies to achieve each of these :

- a) Child uses hearing aid consistently
- b) Child receives high quality auditory stimulation
- c) The child reacts to sound
- d) The hearing aids function properly

OR

(4x4=16)

8) Describe some of the outcome assessment tools that have been developed for use with adults to measure hearing aid benefit.

V. 9) Describe the principle of tinnitus retraining therapy. Who is a candidate for TRT ?

OR

16

10) Describe the different approaches to management of tinnitus. What are their limitations ?