

AC 010

III Semester M.Sc. (Aud.) Examination, December 2007
(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 and modification of adaptive with hearing impaired. 16

OR

- 2) a) Discuss the importance of studying loudness adaptation in individuals with hearing impairment. 12
b) What is the importance of cross-modality matching procedures to study loudness adaptation. 4

- II. 3) Discuss in detail the various factors that would affect the perception of pitch of
a) Puretones 8
b) Complex tones in hearing impaired. 8

OR

- 4) Justify with suitable examples how frequency resolution and frequency discrimination are affected in individuals with various degrees of hearing impairment. 16

- III. 5) Write notes on : (4x4=16)
a) Temporal integration with various degrees of hearing impairment.
b) Gap detection in severe and moderately severe sensory hearing impaired.
c) Auditory numerosity in severe sensorineural hearing loss.
d) Perception of temporal order in hearing impaired.

OR

- 6) What is the importance of
a) Differential sensitivity for duration in hearing impaired. 8
b) What is auditory numerosity ? How can you study auditory numerosity ? 8

P.T.O.

- IV. 7) Discuss the relevance of the following in hearing impaired :
- a) Non-simultaneous masking 8
 - b) Central masking. 8
- 8) a) Define forward/backward masking. 4
- b) Discuss the relevance of studying these in the hearing impaired. 12
- V. 9) a) What is the importance of DL for frequency and intensity in hearing impaired ? 8
- b) How is this information useful for the management of hearing impaired ? 8
- 10) a) What are the advantages of binaural amplification for the hearing impaired ? 8
- b) What parameter would indicate the outcomes of binaural amplification ? 8

III Semester M.Sc. (Audiology) Examination, December 2007
(Semester Scheme)

Seminars in Assessment of the Hearing Impaired

Time : 3 Hours

Max. Marks: 80

Instruction : Answer all the questions following the directions given.

- I. 1) a) Describe the different stages of otosclerosis and the audiologic profile in each stage. 8
b) Write a note on post-operative findings in otosclerosis. 8
- 2) a) Discuss the role of an audiologist in identifying hearing loss with a genetic basis. 8
b) Write a note on genes identified to cause non-syndromic hearing loss of genetic basis. 8
- II. 3) Discuss the pathophysiology and audiological characteristics in subjects with (i) Meniere's disease and (ii) noise induced hearing loss. Bring out the correlation between pathophysiology and auditory characteristics. 16

OR

- 4) a) Discuss the etiology of auditory neuropathy.
b) What auditory characteristics differentiate between auditory neuropathy and acoustic neuroma ? 8
- III. 5) Discuss the test protocol employed in the evaluation of children with (i) autism and (ii) cerebral palsy. 16

OR

- 6) Write an essay on the evaluation of subjects with hyperacusis and mention the implications of test results in rehabilitation. 16
- IV. 7) Write a note on :
a) Residual inhibition in tinnitus evaluation. 8
b) Tinnitus masking curve. 8

OR

P.T.O

8) Compare and contrast

a) Caloric test and rotary test

8

b) Positional test and positioning test.

8

V, 9) Write a note on the usefulness of the following tests in the diagnosis and management of auditory disorders :

16

a) CT

b) MRI

c) PET

d) Bone scanning

OR

10) Describe the use of non-audiological investigation in the diagnosis and management of following

16

i) Acoustic neuroma

ii) Syndromic hearing loss.

III Semester M.Sc. (Aud.) Examination, December 2007
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Audiology
Speech Perception

Time : 3 Hours

Max. Marks : 80

Instruction : Answer all questions.

- I. 1) Describe duplex perception and the McGurk phenomenon. What is their relevance for theories of speech perception ? 16
- OR
- 2) a) Write notes on the coding of speech at the auditory nerve and the cochlear nucleus. 8
- b) Categorical perception of speech has been refuted. Justify the statement "categorical perception of speech has been refuted". 8
- II. 3) Describe the temporal cues used in the perception of stops. 16
- OR
- 4) Consonantal information can be obtained from adjacent vowels. Support this statement with studies. 16
- III. 5) Phonemes are coded differently in the left ear and the right ear when presented dichotically. Discuss. 16
- OR
- 6) a) Explain any three theories that account for dichotic speech perception the best. 12
- b) Justify your choice of theories. 4
- IV. 7) a) Compare auditory and phonetic memory. 8
- b) What is their importance in perception of speech sounds ? 8
- OR
- 8) Write on the perception of consonants by animals. 16
- V. 9) What is meant by universal speech perception ? Support your answer with the studies reported in literature. 16
- OR
- 10) Describe how infants perceive voice voiceless contrasts in comparison to adults. 16

III Semester M.Sc. (Audiology) Examination, December 2007
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Audiology

Electrophysiological Assessment of the Auditory System

Time: 3 Hours

Max, Marks: 80

Instruction: Answer all questions.

- I. 1. Discuss the principles in recording endogenous potentials. 16
2. a) What is the difference between exogenous and endogenous potentials ? 8
b) Which systems are the generators of endogenous potentials ? Support your answer with relevant research findings. 8
- II. 3. a) A 20 day old infant with history of hyperbilirubinemia comes to you for ABR testing. What is the protocol you would use and why ? 8
b) Trace the effect of aging on ABR from infancy to late adulthood. 8
4. Write an essay on ECoChG. 16
- III. 5. a) Discuss the effect of electrode placement on AMLR. 8
b) What factors need to be considered while carrying out ALLR procedure ? 8
- OR
6. Discuss the importance of AMLR and ALLR in audiology practice. 16
- IV. 7. Endogenous potentials are of limited use in clinical audiology. Discuss. 16
- OR
- v: 8. Write notes on:
a) Stimulus factors and MMN. 8
b) C.N.V. 8
- V. 9. What factors affect the interpretation of steady state evoked potentials ? 16
- OR
10. Justify the need of inclusion of SSEP in Paediatric test battery. 16

AC 070

III Semester M.Sc. (Audiology) Examination, December 2007 (Semester Scheme)

Audiology Seminars in Rehabilitative Audiology

Time : 3 Hours

Max. Marks : 80

Instruction : Answer all questions.

- I. 1) Discuss the special features provided in digital hearing aids. Write short notes on the utility of those features. 16
- OR
- 2) Describe the technique adopted to overcome the following challenges in amplification fitting : (4x4=16)
- i) Ski sloping hearing lose
 - ii) Tolerance problem to loud sounds
 - iii) Excessive feedback
 - iv) Need to work in noisy surroundings.
- II. 3) a) What is meant by standardization in the context of hearing aid standards ? 4
- b) Propose standards for hardwire group hearing aids. 12
- OR
- 4) a) "If two different electroacoustic characteristic measuring equipment give two different readings for the same hearing aid, what could be the possible reasons for this ?" 10
- b) What is EIN ? How is it measured ? 6
- III. 5) Who are the clients to whom you would prefer to prescribe a digital hearing aid rather than an analogue hearing aid ? Justify your answer. 16
- 6) a) Discuss the points you would cover while counselling the caregivers of a 3 year old child with unilateral profound hearing loss. 8
- b) How would you evaluate the benefits of hearing aid in such a child ? 8

P.T.O.

- IV. 7) a) What factors determine the successful outcome of rehabilitation with children ? 8
- b) Describe the strategies for communication to be employed with individuals who have associated problems, 8
- 8) a) Describe the importance of early intervention in the rehabilitation of children. 8
- b) What factors contribute to the successful management of hearing impaired geriatrics? 8
- V. 9) a) What is tinnitus? How is it classified ? 4
- b) Discuss the tinnitus management strategies available to an audiologist. 12
- OR
- 10) Write an essay on :
- a) Hair cell regeneration 8
- b) Gene therapy. 8