

MSC AD/AC 010

II M.Sc. (III Sem.) Examination, November/December 2004
(Semester Scheme)
Speech and Hearing
Audiology
Psychophysics of Audition in the Hearing Impaired

Time: 3 Hours

Max. Marks: 80

Instruction: Answer all questions.

- I. 1. Critically evaluate adaptive test procedures in Audiology. 16
OR
2. Discuss the effect of cochlear pathology on the perception of loudness. 16
- II. 3. How is perception of pitch different in normals and hearing impaired ? 16
4. Discuss the factors that impact on the perception of pitch in the hearing impaired. 16
- III. 5. a) Explain the terms "Temporal Integration" and "Auditory Numerosity". 6
b) How are they measured clinically ? 10
OR
6. Write an essay on auditory temporality in the hearing impaired. 16
- IV. 7. Discuss the relationship between masking level and threshold shift. 16
OR
8. a) Explain central masking, forward and backward masking. 6
b) How are these affected in the hearing impaired ? 10
- V. 9. a) Describe the factors affecting binaural hearing in the hearing impaired ? 16
OR
10. a) How will unilateral hearing loss affect the perception of binaural hearing phenomenon ? 8
b) What is its implication for rehabilitation ? 8

MSC AD/AC 020

II M.Sc. (Audiology) III Semester Examination, Nov./Dec. 2004
Speech and Hearing
Seminars in Assessment of the Hearing Impaired

Time : 3 Hours

Max. Marks : 80

Instruction : All Units are compulsory,

UNIT-I

1. a) Describe the histopathological findings in the two most commonly occurring conductive hearing losses. 8
- b) Using appropriate diagrams and tables, list the audiological findings in the above described conditions. 8

OR

2. a) Enumerate the prerequisite basics of genetics that an Audiologist should be aware of. 6
- b) Describe the use of audiological tests in the identification of carriers of genetic hearing loss. 10

UNIT-II

3. a) Correlate audiological findings with histopathological findings in cochlear pathology. 10
- b) Comment on the recent audiological tests recommended for identification of cochlear pathology. 6

OR

4. a) "The battery of audiological tests employed over the last 05 years have replaced the conventional test battery." Discuss. 10
- b) Discuss the recent concepts of retrocochlear pathology and its derivatives. 6

UNIT-III

5. a) "Assessment of auditory disorders in the special population is complex." Discuss. 10
- b) Compare the nuances of hearing assessment in children with mental retardation and autism. 6

OR

6. a) Define hyperacusis. 2
- b) List the behavioural characteristics usually demonstrated by this population. 4
- c) Describe one objective test of hyperacusis. Add a note on its merits and demerits. 10

P.T.O.

UNIT-IV

7. a) Describe the common conditions associated with vestibular problems. 4
b) Justify the need for the Audiologist to be well versed with vestibular tests. 4
c) Write briefly on the available rehabilitation techniques for patients afflicted with vestibular problems. 8

OR

8. a) Discuss the pathophysiology of tinnitus. 8
b) Elaborate on residual inhibition and its implication in management of tinnitus. 8

UNIT-V

9. a) Discuss the merits and demerits of non-audiological tests employed in the differential diagnosis of auditory disorders. 10
b) List the lab tests that contribute to the differential diagnosis of auditory disorders. 6

MSC AD/AC 030

II M.Sc. III Semester Examination, November/December 2004
(Semester Scheme)

Audiology Speech Perception in Clinical Population

Time: 3 Hours

Max. Marks: 80

Instruction : Answer all the questions.

- I. 1. Co-articulation cues used by the hearing impaired are no different from those used by normal hearing individuals. Comment. 16
OR
2. The hearing impaired perceive vowels easier than consonants. Discuss. 16
- II. 3. a) Comment on visual perception of speech with reference to the length of utterance. 10
b) Define visemes 3
c) Define homophenes 3
OR
4. Compare speech perception through visual and tactile modalities. 16
- III. 5. Compare the perception of speech across different cochlear implants using CIS strategy. 16
OR
6. How would you apply your knowledge of perception of speech through multichannel cochlear implants in the speech training of a hearing impaired child? 16
- IV. 7. What factors influence speech intelligibility in normals and hearing impaired ? 16
OR
8. Highlight the advantages and disadvantages of subjective and objective methods of determining speech intelligibility. 16
- V. 9. How would you use your knowledge of acoustics of speech in the rehabilitation of the hearing impaired ? 16
OR
10. Write a proposal to evaluate the effect of room acoustics in an auditorium in which both normal and hearing impaired individuals attend lectures. 16

MSC AD/AC 040

II M.Sc. III Semester Examination, Nov./Dec.2004
(Semester Scheme)

Audiology

Electrophysiological Assessment of the Auditory System

Time: 3 Hours

Max. Marks: 80

Instruction: Answer all questions.

- I. 1) Compare and contrast the instrumentation used for recording ABR and P300. 16
OR
2) A 8 yr. old child has normal ABR, normal ALLR and abnormal MMN. What is your conclusion on the site of auditory dysfunction in this child ? Justify. 16
- II. 3) A 8 day neonate with a complaint of Rh incompatibility is referred to your clinic for ABR. How would your test protocol differ from that of adults ? Justify your answer. 16
OR
4) a) Describe the different types of electrodes used in recording Ecoch G.
b) Discuss the clinical relevance of Ecoch G responses. 16
- III. 5) Describe the auditory evoked potentials recorded in the latency range of 10 to 300 msecs and discuss their clinical applications. 16
OR
6) a) "AMLR and ALLR have limited clinical and research application." Critically comment on the statement.
b) While testing a 10 yr old boy, recording of AMLR was contaminated by artifacts. What measures would you take to reduce the artifacts ? 8+8
- IV. 7) Discuss the usefulness of auditory evoked potentials in understanding neurophysiological correlates of speech perception. 16
OR
8) Discuss the clinical applications of the following potentials and the limitations of the same:
a) P 300 and N 400
b) M M N . 8 + 8
- V. 9) Compare and contrast the stimuli used in, and the recording procedure of ABR and ASSR. 16
10) a) Discuss the effect of modulation frequency and carrier frequency on ASSR. 8
b) Write a note on application of F ratio and phase coherence technique in recording ASSR. 8

MSCAD/AC 050

II M.Sc. (III Semester) Examination, Nov./Dec. 2004
(Semester Scheme)
Speech and Hearing
Audiology
Audiology In Practice

Time: 3 Hours

Max. Marks: 80

Instruction: Answer all the questions.

- I. 1. a) Audiological practice differs from centre to centre and set-up to set-up. Discuss. 10
b) How does an audiologic set-up for children differ from an audiologic set-up for general population ? 6

OR

2. Explain the differences in the functioning of a community based rehabilitation centre and an urban institution based day care rehabilitation centre. Elaborate how are these two audiological facilities different in their structure. 16

- II. 3. Explain the importance of : 2x8=16
a) Hand-held screener.
b) Reflectometer
c) Hand tympanometry
d) Battery tester
e) Oto acoustic emission analyzer
f) Audio cups
g) Noise dosimeter
h) Pitch pipes in audiological set-ups.

OR

4. Explain the role of an audiologist in the following set-ups: 4x4=16
a) Child guidance clinic
b) School for hearing impaired
c) ENT dept. in a general hospital and
d) Neuro audiological set-up.

- III. 5. Give your plan for setting up an audiologic set-up in an industry. List out all the equipments you need and explain why they are needed. Bring out the special features of such a set-up. 16

OR

6. What are the essential qualities expected of an audiologist to function as a private practitioner ? 16

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- IV. 7. a) Record keeping is essential in an industrial audiological set-up. Justify the statement. 6**
- b) Write a note on the role of audiologist in Forensic Audiology. 10**
- OR**
- 8. a) What precautions a practicing audiologist should take to escape punishment under the Consumer Protection Act ? What aspects of audiological practice are covered under this Act ? 10**
- b) What do you think of the need for an insurance scheme for an audiologist to be able to pay damages if ordered under the Consumer Protection Act? 6**
- V. 9. a) State the benefits and protection an employee gets under the Pollution Control Act. 10**
- b) On what grounds an industrial employee can claim for compensation ? 6**
- OR**
- 10. "The Indian standards specified for hearing aids need to be updated". Justify the statement. 16**