MSCAD/AC 010

III Semester M.Sc. (AUD.) Examination, January 2010
(Integrated Semester Scheme)
Audiology
Psychophysics of Audition in the Hearing Impaired

Time : 3 Hours Max. Marks : 80

Instructions : 1) Attempt all questions.
2) All questions carry equal marks.

I. 1) What are the current views of recruitment ? How are these concepts incorporated in hearing aids ? 16

OR

2) a) Write a note on one adaptive procedure used clinically. 8

b) Compare the psychometric function for clinical population with that of normal hearing population. 8

II. 3) Critically evaluate the place and temporal models of pitch perception in persons with sensori neural hearing loss. 16

OR

4) a) Write a note on pitch perception for pure tones. 10

b) Write a note on diplacusis. 6

III. 5) a) Describe the findings of the studies on temporal modulation transfer functions. Discuss their implications. 10

b) Write a note on differential sensitivity for duration. 6

OR

6) Write a note on temporal resolution in impaired cochlea. 16

P.T.O.

IV. 7) Write a note on TEN test. Discuss its usefulness in hearing and fitting. 16

OR

8) Describe the consequences of broadened tuning curves and its implications for digital signal processing. 16

V. 9) Describe the effect of the type of hearing loss on binaural hearing. 16

OR

10) Explain the usefulness of the CROS aids in the 'restoration' of binaural hearing. 16

MSCAD/AC 020

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

Time : 3 Hours Max. Marks : 80

Instructions : 1) Attempt all questions.
2) All questions carry equal marks.

I. 1) Discuss about audiological profiling of genetic hearing loss and its implications in diagnostic and rehabilitative audiology. 16

OR

2) Discuss in detail, the effect of different middle ear conditions, on the impedance of the conductive mechanism. How do these reflect as test findings on immittance audiometry ? 16

II. 3) Correlate the audiological findings with histopathological findings in an ear with cochlear dead regions above 2KHz. 16

OR

4) Explain the histopathological findings seen in cases of ototoxicity. Support your answer with research findings of studies on animal or human subjects. 16

III. 5) Write an essay on hyperacusis. 16

OR

6) Explain the difficulties in assessment of hearing loss in children with deaf-blindness and the modifications in the test battery to be made to enable proper assessment. 16

P.T.O.

IV. 7) Write a note on TEN test. Discuss its usefulness in hearing and fitting. **16**

OR

8) Describe the consequences of broadened tuning curves and its implications for digital signal processing. **16**

V. 9) Describe the effect of the type of hearing loss on binaural hearing. **16**

OR

10) Explain the usefulness of the CROS aids in the 'restoration' of binaural hearing. **16**

3rd paper)

MSCAD/ AC 060

III Semester M.Sc. (Audiology) Examination, January 2010

(Semester Scheme)

Audiology

Speech Perception

Time: 3 Hours Max. Marks: 80

Instruction : *Answer **all** questions.*

I. 1. Discuss the evidences in literature that support 16

a) Motor theory of speech perception.

b) Analysis by synthesis theory of speech perception.

OR

2. Discuss how stop consonants, fricatives and vowels are coded in auditory pathway. 16

II. 3. Describe the cues, used for perception of fricatives and affricates in persons with normal hearing. 16

OR

4. Describe the coorticulatory effects of vowels on perception of 16

a) Stop consonants b) Nasal consonants

c) Fricatives d) Laterals

III. 5. Discuss the factors that affect :

a) Right ear advantage in dichotic listening. 8

b) Long effect in dichotic listening. 8

OR

6. Discuss the clinical application of dictotic listening. 16

P.T.O.

IV. 7) a) Explain the sites of disorder and the specific conditions that are known to cause tinnitus. **10**

b) What role do psychological aspects play in tinnitus ? **6**

OR

8) Explain in detail the conditions that are known to cause vertigo and the mechanism known to be responsible for the same. Give research findings as applicable. **16**

V. 9) a) Explain the background and general principals of MRI, PET scan and CT scan. **8**

b) What is the relevance of these tests in diagnostic audiology ? **8**

OR

10) What are the indications and contra indications for non-audiological tests ? **16**

MSCAD/AC 040

III Semester M.Sc. (Aud.) Examination, January 2010
(Semester Scheme)
Speech and Hearing
Electrophysiological Assessment of the Auditory System

Time : 3 Hours

Max. Marks : 80

Instruction : Answer all questions.

I. 1) Describe the various ways of classifying the auditory evoked potentials. State the presumed generators of exogenous potentials with evidence from literature. 16

OR

2) Draw a block diagram of an AEP system and describe in detail the different factors that contribute to improvement in signal to noise ratio in AEP recordings. 16

II. 3) Do we need to generate normative data for ABR test interpretation ? Justify using evidence from literature. 16

OR

4) a) Discuss the different procedures used for recording EcochG 8

b) Explain the role of EcochG in the differential diagnosis of auditory disorders. 8

III. 5) Describe the test protocol for AMLR. State the implications and usefulness of AMLR in the audiology practice. 16

OR

6) Describe the effects of stimulus and recording parameter on ALLR. 16

IV. 7) a) Discuss the stimuli related factors that need to be considered while recording P300. 8

b) P300 is a useful tool in assuming amplifying in metabolic disorder cases. Do you agree ? Justify with evidence from literature. 8

OR

8) Discuss the role of endogenous potentials in clinical audiology. 16

V. 9) a) Compare and contrast the recording procedure used for ABR and ASSR. 8

b) A one year old baby with a history in inconsistent responses to auditory stimuli is referred to you for AEP. Which tool will you prefers ? Justify your answers. 8

OR

10) Discuss the reliability and validity of ASSR results. Support your answer with relevant research findings. 16

IV. 7. Explain with evidence from literature, how vowels and consonants are stored in short term memory. 16

OR

8. Compare and contrast speech perception in animals and humans. 16

V. 9. Give evidences from literature to support that universal perception of speech exists in infants. 16

OR

10. Describe any two methods used to study speech perception in infants and critically evaluate them. 16

MSCAD/AC 070

III Semester M.Sc. (Audiology) Examination, January 2010
(Scheme : Semester)
Speech and Hearing
Seminars in Rehabilitative Audiology

Time : 3 Hours Max. Marks : 80

Instruction : Answer all questions.

I. 1) Evaluate and describe the available signal enhancing techniques to improve signal-to-noise ratio. **16**

OR

2) How has greater understanding of cochlear physiology shaped hearing aid technology ? **16**

II. 3) Compare the ANSI, IEC and BIS standards for hearing aids. **16**

OR

4) Describe the method of measuring electroacoustic characteristics in FM hearing instruments. **16**

III. 5) How would you select an appropriate digital hearing aid for a 5 year old child assuming you have a choice of 3 aids and that the child's language age is 36 months ? **16**

OR

6) Discuss about the importance of family support for effective habilitation of young children with hearing impairment. **16**

IV. 7) Discuss the problems in communication, specific to senior citizens, and strategies to overcome the same. **16**

OR

8) How would you integrate your knowledge of brain plasticity and programmed learning to promote listening in preschoolers ? **16**

V. 9) Critically evaluate Jastreboff's model of tinnitus. **16**

OR

10) What strategies would you use to manage tinnitus in adults with : **(4×4=16)**

a) Moderate sensory hearing loss b) Mild high frequency hearing loss

c) Otosclerosis d) No measurable hearing and tinnitus ?