Total No. of Pages: 2

# III Semester II year M.Sc. Examination, December - 2019 (Scheme : CBCS)

### **AUDIOLOGY**

## Implantable Devices for Individuals with Hearing Impairment

Time: 2 Hours

Max. Marks: 50

Instruction: Answer all questions.

- I. 1. How does the candidacy for BAHA and middle ear implants differ?[10]
  OR
  - 2. Differentiate piezoelectric and electromagnetic devices, highlighting their advantages and disadvantages. [10]
- II. 3. Write notes on measures and tests that should be done to establish candidacy of clients for cochlear implants in those aged below 2 year of age.[15]

OR

- 4. Parents want their child with hearing impairment to undergo bilateral cochlear implant surgery. On what basis will you advise them to undergo unilateral, bilateral, bimodal or electroacoustic cochlear implants? [15]
- III. 5. What changes should be done in routine map parameters in the following?  $[3 \times 5 = 15]$ 
  - a) A case within 8th nerve
  - b) A case with poor loudness growth
  - c) At the time of switch-on

OR

6. Describe ways in which the most comfortable level or the comfortable level can be set in children. [15]

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IV. 7. On what basis will you decide whether a client should be recommended a cochlear implant or a brainstem implant. [10]

OR

8. How would the mapping for brainstem implants differ from that of cochlear implants? [10]



Total No. of Pages: 1

# III Semester M.Sc. IInd Year (Audiology) Examination,

December - 2019

(Scheme: CBCS)

## **AUDIOLOGY**

# **Speech Perception**

Time: 2 Hours

Max. Marks: 50

Instruction: Answer all questions.

1. Describe the cooling of different acoustic cues of speech in auditing nerve and cochleor nucleus. [15]

#### OR

- 2. Explain with relevant literature the different factors that contribute to speaker and rate normalization of vowels. [15]
- 3. Dynamic cues plays crucial role in the perception of stop consonants. Critically evaluate the statement. [15]

#### OR

- 4. Describe the cues that help in perceiving nasals, fricatives and affricates.[15]
- 5. (a) What are the different methods to synthesize speech? [5]
  - (b) Explain any one technique along with its advantages and disadvantages.[5]

#### OR

- 6. Explain the acoustical cues that help in the perception of suprasegmental aspects of speech. [10]
- 7. What is the role of short term memory in the perception of vowels and consonants. [10]

#### OR

8. Explain different methods to study infant speech perception along with its advantages and disadvantages. [10]

Total No. of Pages: 2

# III Semester M.Sc. II<sup>nd</sup> Year Examination, December - 2019 (Scheme: CBCS) AUDIOLOGY

# Seminars in Assessment of Hearing Impairment

Time: 2 Hours

Max. Marks: 50

Instruction: Answer all questions.

1. Comment on the role of immittance in the differential diagnosis of various conductive pathologies. [10]

#### OR

- 2. Discuss the correlation of audiological findings to its histopathological findings in disorders of ossicular chain. [10]
- 3. Describe the audiological findings and its histopathological correlates in individuals with sudden hearing loss. [15]

#### OR

- 4. Describe your choice of test battery to diagnose a case with acoustic neuroma.

  Justify your choice of tests.

  [15]
- 5. Describe the tests used in the assessment of hyperacusis and discuss its implication in the rehabilitation. [15]

OR

**6.** Write short notes on :

[15]

- a) Theories of Tinnitus.
- b) Audiological assessment of a child with hearing impairment and mental retardation.
- c) Conditions causing vestibular problems.
- 7. What is the importance of genetic evaluation in the individuals with hearing loss? [10]

OR

**8.** Write short notes on:

[10]

- a) CT scan in the assessment of hearing loss.
- b) Aminocentesis.



Total No. of Pages: 2

# III Semester M.Sc. IInd Year (Audiology) Examination,

December - 2019

(Scheme: CBCS)

## **AUDIOLOGY**

## Seminars in Rehabilitative Audiology

Time: 2 Hours

Max. Marks: 50

Instruction: Answer all questions.

- I. 1 Write an essay on the use of wireless technology in hearing devices. [15]

  OR
  - 2 a) Write an essay on the electro-acoustic measurements of digital hearing aids. [8]
    - b) Write a note on variables that affect electro acoustic measurements. [7]
- II. 3 Elaborate on the verification of advanced features in hearing aid fitting.

  [15]

OR

4 Elaborate on the following:

[8 + 7]

- a) Verification of FM devices.
- b) Pre-selection factors for hearing assistance technology.
- III. 5 a) How would you counsel a care given on getting one year old child to use hearing aids? [5]
  - b) How would you counsel an adult hearing aid user on adjusting to the use of amplification device? [5]

OR

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- 6 Highlight the importance of various outcome measures to determine the utility of hearing devices. [10]
- IV. 7 With suitable illustrations, elaborate on the application of neurophysiological model in the management of tinnitus. [10]

OR

8 How does rehabilitation differ for a child with deaf-blindness from that for a child with hearing impairment alone? [10]



Total No. of Pages: 2

# III Semester M.Sc. II<sup>nd</sup> Year Examination, December - 2019 (Semester Scheme CBCS) AUDIOLOGY

Vestibular System: Assessment & Management

Time: 2 Hours Max. Marks: 50

Instruction: Answer all questions.

I. 1) Using a neat labelled diagram, describe the anatomical frame work of the vestibuloocular reflex (VOR) pathway arising in the lateral semicircular canal.

#### OR

- 2) a) Describe the functioning of any two visual sub-systems concerned with balance. [5]
  - b) Describe various strategies used for balance sustenance during purturbations of various degrees and various surfaces. [5]
- II. 3) a) Describe the procedure and interpretation of glycerol test. [5]
  - b) Enlist various audio-vestibular tests that have been found useful when used in conjunction with the glycerol test. [5]
  - c) Write a note on 'Dizziness Handicap Inventory'. [5]

#### OR

- 4) Using evidences from the published works, comment on the utility of VEMPs in diagnosis and differential diagnosis of BPPV. [15]
- III. 5) a) Describe the findings of various vestibular tests in cases of Diabetes Mellitus. [5]
  - b) Compare and contrast BPPV and vestibular paroxysmia using pathophysiology, symptomatology and assessment outcomes. [5]

c) Compare and contrast menieres' disease and vestibular migraine using of case history, pathophysiology and test outcomes. [5]

#### OR

- 6) a) How does degeneration at various levels of the vestibular pathway affect the outcomes of vestibular assessment? Describe. [10]
  - b) Write a note on the commonly encountered vestibular disorders in children. [5]
- IV. 7) a) Describe various medical management options for a case with Menieres disease. [5]
  - b) Write a short note on Brandt-Daroff exercises and their utility. [3]
  - c) Enlist the non-medical management options for a case with vestibular migraine. [2]

#### OR

8) Describe the Cowthrone-Cookery exercises for a case with labyrinthits. [10]

