

**I Semester M.Sc. (AUD) Examination, August - 2021****(Scheme : CBCS)****AUDIOLOGY****Diseases of the Ear and Auditory and Auditory Pathway****Time : 2 Hours****Max. Marks : 50**

- Instructions :** 1) *Draw neat diagrams wherever necessary.*  
2) *Answer all the questions.*

**I.** 1) Describe the Anatomy of inner ear. Add a note on mechanism of Hearing. [10]

OR

- 2) a) Describe Central Audiology pathway & its connections. [5]  
b) Explain the physiology of Nerve conduction with a note on Auditory Neuropathy. [5]

**II.** 3) a) Describe the etiology, clinical features, Audiological evaluation & management of sudden SNHL. [10]  
b) Mention the common diseases of external ear. Add a note on otomycosis. [5]

OR

4) Mention the diseases of otic capsule. Explain clinical features, Investigation and management of CP angle tumours. [15]

**III.** 5) a) Describe the structures involved in ototoxicity, add a note on pathogenesis. [5]  
b) Write about chrome otitis media and its management. [5]  
c) Write the medicolegal Issues with ototoxicity. [5]

OR

6) Name the various ototoxic drugs & their therapeutic uses in diseases. [15]

**P.T.O.**

IV. 7) Write notes on :

- a) BPPV (Benign Paroxysmal Positonal Vertigo). [5]
- b) Neural efferents from Labyrinth & their central connections. [3]
- c) Cawthorne - Cooksey exercises (VRT). [2]

OR

- 8) Mention various causes of vertigo. Describe in detail about Meniere's Disease. [10]



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I Semester M.Sc. Examination, August - 2021

(Scheme : CBCS)

AUDIOLOGY

Physiological Assessment of the Auditory System

Time : 2 Hours

Max. Marks : 50

Instruction : Answer all questions considering the choice provided.

- I. 1) Explain the instrumentation and set up for single component tympanometry with an illustration. [10]
- OR
- 2) Describe the clinical applications of tympanometric evaluation in differential diagnosis and management. [10]
- II. 3) a) Explain the acoustic reflex pathway with a neat illustration. [10]  
b) Explain the procedure to conduct reflex decay test. [5]
- OR
- 4) a) Explain the various reflex patterns observed in various pathologies. [10]  
b) Write a note on non acoustic reflexes. [5]
- III. 5) a) Explain the classifications of OAEs. [10]  
b) Write the instrumentation required to record SOAE. [5]
- OR
- 6) Describe the principles and recording of different types of DPOAEs & TEOAEs. [15]
- IV. 7) What are the various factors affecting the evoked OAEs? [10]
- OR
- 8) What are the implications of evoked OAEs in differential diagnosis and management? [10]





**I Semester M.Sc. (AUD) Examination, August - 2021****(Scheme : CBCS)****AUDIOLOGY****Auditory Perception****Time : 2 Hours****Max. Marks : 50****Instruction : Answer all questions.**

- I. 1) Explain the classical and adaptive methods for psychophysical testing. [15]  
OR  
2) Explain the theory of signal detection and its applications in Audiology. [15]
- II. 3) How loudness is perceived in individuals with normal hearing and hearing impairment. Explain. [10]  
OR  
4) Explain the process of the perception of complex signals in the auditory system. [10]
- III. 5) How will you estimate the shape of the auditory filter? Explain any two procedures for the same. [15]  
OR  
6) What is non peripheral masking phenomenon? Explain the procedure of co modulation masking release. [15]
- IV. 7) Explain any two tests to assess temporal resolution abilities. [10]  
OR  
8) Explain any two models of temporal processing. [10]





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**I Semester M.Sc. Examination, August -2021**

**(Scheme : CBCS)**

**AUD/SLP**

**Research Methods and Statistics in Speech-Language & Hearing**

**Time : 2 Hours**

**Max. Marks : 50**

**Instruction : Answer all the questions.**

- I.** 1) a) Explain the scope of case study in Speech and Hearing Research. [8]  
b) Discuss the format of scientific report writing. [7]

OR

- 2) Write short notes on :
- a) Independent variables. [5]  
b) Retrospective research. [5]  
c) Observational research. [5]

- II.** 3) a) What are the advantages and disadvantages of single-subject designs? [5]  
b) Delineate the barriers to evidence based practice. [5]

OR

- 4) a) Discuss any two experimental designs with suitable examples from the field of speech and hearing. [6]  
b) Explain the factors considered under external validity of research. [4]

**P.T.O.**

- III. 5) a) Explain the method of constructing linear regression equation with two independent variables. [5]  
 b) Differentiate between cluster analysis and discriminant analysis. [5]  
 c) Explain the applications of independent t-test and write the procedure for the same. [5]

OR

- 6) a) Test for significance of age group and severity in the following data on scores obtained in a test, using suitable ANOVA. [10]

	Age Group (yrs)			
Severity	0 - 10	10 - 20	20 - 30	30 - 40
Mild	10	12	14	15
Moderate	8	10	12	12
Severe	5	10	10	10
Profound	2	5	10	10

- b) What are post-hoc tests? Discuss any two post-hoc tests. [5]

- IV. 7) a) Test the significance of difference between scores in the following severity groups using Kruskal wallis test. [6]

Mild	19	18	20	17	15	14
Moderate	12	13	10	9	11	-
Severe	3	5	4	6	2	-

- b) Write a short note on non-parametric tests applied in case of related samples. [4]

OR

- 8) a) Differentiate between parametric and non-parametric tests. [3]  
 b) What are the consequences of failure of assumptions underlying parametric tests. [3]  
 c) Calculate Kappa coefficient and interpret. [4]

	Judge 1	
Judge 2	Normal	Abnormal
Normal	5	25
Abnormal	15	5





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I Semester M.Sc. Examination, August- 2021

(Scheme : CBCS)

AUDIOLOGY

Auditory Physiology

Time : 2 Hours

Max. Marks : 50

Instruction: Answer all the questions.

- I. 1. Critically evaluate the non-osseous pathway of bone conduction with supporting studies. [10]

OR

2. Describe the characteristics ossicular chain vibration and its role in sound conduction. [10]

- II. 3. Describe the afferent and efferent innervations of the cochlea. [10]

OR

4. Write in detail about the differences in middle ear and inner ear of human beings and lower animals. [10]

- III. 5. Write in detail about mechano-electrical transduction in the cochlea with supporting figures. [15]

OR

6. Describe the generation and dynamics of cochlear fluids. [15]

- IV. 7. Describe the vestibule-ocular and vestibule-spinal reflexes. Write about their clinical relevance. [15]

OR

8. Describe the structure and physiology of membranous labyrinth of vestibular sensory organ. [15]



