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Sl.No. 0045

AUD/

Total No. of Pages : 2

II Semester M.Sc. (SLP)/ Examination, June/July - 2017
(Scheme : CBCS)

SPEECH-LANGUAGE PATHOLOGY / AUDIOLOGY

Information Management in Speech, Language and Hearing (OE)

Time : 2 Hours

Max. Marks : 50

Instruction: Answer all questions.

- Q1) a) i) Define Data, Information and Knowledge. [5]
ii) Discuss the primary sources of information with special reference to the field of communication disorders. [10]

OR

- b) i) Discuss the criteria for evaluating a health science website. [10]
ii) Explain the characteristic features of electronic information sources. [5]

- Q2) a) Compare the PubMed and COMDISDOME databases. [10]

OR

- b) Write short notes on: [10]
i) Advanced search techniques.
ii) MeSH.

- Q3) a) i) Justify the need for charing research information. [5]
ii) Explain the basic rules for preparing reference list according to APA style. [10]

OR

P.T.O.

b) i) What is Academic Writing? How does it differ from other writing contexts? [10]

ii) Write short note on Mendeley Reference Management System. [5]

Q4) a) What is Academic Integrity? Explain its importance in higher education. [10]

OR

b) Explain the merits and demerits of Impact Factor. [10]



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II Semester M.Sc. (Audiology & S & H) Examination, June/July-2017
(Scheme : CBCS)

Neurophysiology of Hearing (SC)

Time : 2 Hours

Max. Marks : 50

Instruction: Answer all questions.

Q1) a) Describe the generation propagation and properties of action potential.
Add a note on synapses in the auditory nerve. [10 + 5 = 15]

OR

b) Explain the mechanisms involved in coding of intensity and frequency
in the auditory nerve. [15]

Q2) a) Discuss the role of auditory brainstem in sound localization. [15]

OR

b) Describe the anatomy of Cochlear nucleus and superior olivary complex. [15]

Q3) a) Explain the neurobiological relationship between auditory center and other
areas. [10]

OR

b) Write note on: [5 + 5 = 10]

i) Plasticity in the auditory center.

ii) Layers of the auditory cortex.

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Q4) a) Describe the anatomy of non classical auditory pathway. [10]

OR

b) Discuss the physiology of Olivo-Cochlear bundle. [10]



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II Semester M.Sc. (Audiology) Examination, June/July - 2017

(Scheme : CBCS)

Psychophysics of Audition (HC)

Time : 2 Hours

Max. Marks : 50

Instruction: Answer All questions.

Q1) a) Define the spectral and temporal cues for auditory object perception. [15]

OR

b) Compare auditory pattern perception in individuals with and without hearing impairment. [15]

Q2) a) Write notes on localization of complex tones in individuals with normal hearing. [15]

OR

b) How are time-intensity trading & envelope cues used in perception of complex tones? [15]

Q3) a) Explain the important cues that help in binaural hearing. [10]

OR

b) What is the procedure and expected findings in MLD using complex signals? [10]

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Q4) a) What are the different methods of studying auditory adaptation? [10]

OR

b) What are the factors affecting auditory-adaptation? [10]



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II Semester M.Sc. (Audiology) Examination, June/July - 2017

(Scheme : CBCS)

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**II Semester M.Sc. (Audiology) Examination, June/July - 2017
(Scheme : CBCS)**

Electrophysiological Assessment of the Auditory System

Time : 2 Hours

Max. Marks : 50

Instruction: Answer All the questions.

Q1) a) Discuss the suitable stimuli to record late latency potentials. [10]

OR

b) Discuss the various signal processing techniques used to record early potentials. [10]

Q2) a) Discuss the clinical importance of various Electro Cochlography potentials. [15]

OR

b) Discuss the various ways of recording frequency specific ABRs. [15]

Q3) a) Elaborate on various factors that influences recording of ASSR. [15]

OR

b) Discuss the clinical application of LLR. [15]

P.T.O.

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Q4) a) Explain the various stimulus and acquisition parameters that affects P300.
[10]

OR

b) Discuss the importance and application of N400 and P600 potentials.
[5 + 5 = 10]



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II Semester M.Sc. (Audiology)/M.Sc. (Speech Language Pathology)

Examination, June/July 2017

(Scheme : CBCS)

CLINICAL BEHAVIOR ANALYSIS

Soft Core: Speech-Language Pathology

Time: 2 Hours

Max.Marks:50

Instruction: Answer all questions.

I. Q1) a) Define learning. Highlight the major characteristics of behavioral approach. [5]

b) Explain the application of ABC Model in behavior based interventions. [5]

OR

Q2) a) Mention the differences between classical and operant conditioning. [5]

b) Explain the major tenets and applications of dialectical behavioral counseling. [5]

II. Q3) a) What is behavior assessment? Explain the steps involved in its use. [5]

b) Explain the applications of operant conditioning techniques in clinical practice. [10]

OR

Q4) a) Describe the steps involved in systematic desensitization. [5]

b) Distinguish reward and punishment. Mention the negative effects of Punishment. [5]

c) Write a note on contingency contracting. [5]

III. Q5) a) Explain negative practice. [5]

b) Describe stress management techniques. [5]

c) Write a note on aversive conditioning. [5]

OR

Q6) a) Attempt an essay on behavior change techniques. [10]

b) Explain the guidelines to be followed in the use of time out. [5]

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- IV. Q7) a) What is biofeedback? Highlight its applications. [5]
b) What is transactional analysis? [5]

OR

- Q8) a) Summarize the features of cognitive behavior techniques. [5]
b) What is reality therapy? [5]



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II Semester M.Sc. (Audiology) Examination, June/July - 2017
(Scheme : CBCS)

Signal Processing Strategies and their Implementation in Hearing Aids

Time : 2 Hours

Max. Marks : 50

Instruction: Answer All questions.

- Q1) a) With neat schematic diagram, explain the structure and working principle of the Microphone used in BTE hearing aids. [5]
- b) Explain the difference between a passive tele-coil and an active tele-coil. Why an active tele-coil is required in hearing aids? [5]

OR

- Q2) a) Compare the features of a moving coil receiver and a balanced armature type receiver. Mention the implications of each of these features. [5]
- b) Why zinc-air batteries are preferred in hearing aids? Explain the working of a zinc-air battery with supporting diagrams. [5]

- Q3) a) Explain the functions performed by a digital signal processor in a digital hearing aid. [5]
- b) The analog signal from the output of the Microphone needs to be converted into digital form to process digitally in hearing aids. Explain in detail about this conversion. [5]

OR

- Q4) a) Comparing the block diagrams of analogue, trimmer controlled and digital hearing aids, highlight the difference in the amplifier structure. [5]
- b) A hearing aid signal has to be filtered digitally for further signal processing. Which type of digital filter will be suitable for this? Justify. [5]

P.T.O.

- Q5) a) Explain the 3 approaches used for implementation of channel separation in hearing aids. [5]
- b) Name the three types of noise reduction strategies implemented in hearing aids. Briefly explain each one of them. [5]
- c) How will you decide the optimum attenuation level in each channel, when noise reduction is achieved through splitting the incoming signal into multiple frequency bands? Explain. [5]

OR

- Q6) a) "In multi channel WDRC systems, the more the number of channels, and faster the compression, the more will be the loss of spectral contrast". Justify. [5]
- b) Explain with an example, how spectral contrast influences the intelligibility of a phoneme when it processed through hearing aids. [5]
- c) How adaptive directionality is achieved in hearing aids with multiple microphones? Explain. [5]
- Q7) a) Ear simulator measurements correspond better on average with real ear measurements than those made in the 2cc coupler. Why? Also mention why 2cc coupler is still preferred. [5]
- b) Which type of coupler is preferred for electroacoustic measurements of an RIC hearing aid? Mention its features. [5]
- c) Explain the electroacoustic procedure to get the input-output curve of a hearing aid with compression. Also illustrate how compression threshold and compression ratio are found out from this input-output curve. [5]

OR

- Q8) a) It is important to analyze how the temporal parameters of hearing aid output speech differs from the input speech. Justify. Show the equipment setup required to conduct such an analysis. [5]
- b) What is an ISTS stimulus? How is it used for electroacoustic evaluation of hearing aids? Highlight the merits of using this stimulus. [5]
- c) Comment on the shortcomings of the present procedure for electroacoustic evaluation of hearing aids. [5]

