

[LB 0212]

AUGUST 2012

Sub. Code: 2315

B.Sc. AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY

SECOND YEAR

**PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II**

Q.P. Code: 802315

Time : Three Hours

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on:

**Pages Time Marks
(Max.) (Max.) (Max.)**

- | | | | |
|---|---|---------|----|
| 1. What are the methods to teach language to the hearing impaired children? | 7 | 20 min. | 10 |
| 2. How will you measure real ear gain? | 7 | 20 min. | 10 |
| 3. Write about programmable and digital hearing aids. | 7 | 20 min. | 10 |

II. Write Notes on:

- | | | | |
|---|---|---------|---|
| 1. What is Articulation index? | 4 | 10 min. | 5 |
| 2. Write about Multisensory approach. | 4 | 10 min. | 5 |
| 3. What is Prescriptive procedure? | 4 | 10 min. | 5 |
| 4. Write about classroom acoustics. | 4 | 10 min. | 5 |
| 5. What are the amplification options for a patient with conductive hearing loss? | 4 | 10 min. | 5 |
| 6. What are manual communications? | 4 | 10 min. | 5 |
| 7. Why early identification is important in aural rehabilitation? | 4 | 10 min. | 5 |
| 8. What are compression characteristics? | 4 | 10 min. | 5 |

III. Short Answers on:

- | | | | |
|--|---|--------|---|
| 1. What are the goals of rehabilitation? | 2 | 4 min. | 3 |
| 2. Monoaural Versus Binaural hearing aids. | 2 | 4 min. | 3 |
| 3. Diffraction effects. | 2 | 4 min. | 3 |
| 4. Types of ear mould. | 2 | 4 min. | 3 |
| 5. Feedback oscillation. | 2 | 4 min. | 3 |
| 6. Programmable increase in low levels. | 2 | 4 min. | 3 |
| 7. John Tracy Clinic. | 2 | 4 min. | 3 |
| 8. Standing Wave. | 2 | 4 min. | 3 |
| 9. Types of coupler. | 2 | 4 min. | 3 |
| 10. Saturation sound pressure level. | 2 | 4 min. | 3 |

[LD 0212]

AUGUST 2013

Sub. Code: 2315

B.Sc. AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY

SECOND YEAR

**PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II**

Q.P. Code: 802315

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Educational options and setting up of class rooms for children with hearing impairment.
2. Electroacoustic characteristics and selection of hearing aid for children with hearing impairment.
3. Different methods of teaching language to the hearing impaired.

II. Write notes on:

(8 x 5 = 40)

1. Peak clipping.
2. Signal processing in hearing aids.
3. Compression.
4. Types of receivers.
5. Parent infant-training programme (PIP).
6. Structures method.
7. Computer aided method.
8. Digital hearing aids.

III. Short Answers on:

(10 x 3 = 30)

1. Define rehabilitation.
2. Unisonsory approach.
3. Total communication.
4. Bill.
5. Modular hearing aids.
6. Binaural hearing aids.
7. Articulation index.
8. Speech spectrum.
9. Word recognition scores.
10. Mother's Training Programme.

B.Sc. AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY

SECOND YEAR

**PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II**

Q.P. Code: 802315

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Define hearing aid? Write a note on classification of hearing aids?
2. Explain the different stages involved in making ear mould?
3. Describe about the selection of hearing aids for adults and geriatrics.

II. Write notes on:

(8 x 5 = 40)

1. Shot note on Electroacoustic Characteristics.
2. Advantages and disadvantages of BAHA.
3. Write a note on educational placement for hearing impaired children.
4. Explain structured method.
5. Note on digital hearing aids.
6. Define multisensory approach.
7. Note on Functional Vs insertion gain.
8. Discuss about the Problems faced by people with hearing impairment.

III. Short Answers on:

(10 x 3 = 30)

1. Master hearing aids.
2. Output limiting.
3. POGO rule.
4. Articulation Index.
5. WDRC.
6. SNR.
7. Damping.
8. FROS.
9. Desired sensation level (DSL).
10. Dynamic range.

B.Sc. AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY

SECOND YEAR

**PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II**

Q.P. Code: 802315

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Objective methods in hearing aid selection with instrumentation.
2. a) Signal processing in hearing aids.
b) Fitzgerald Key.
3. Educational placement of hearing impaired children.

II. Write notes on:

(8 x 5 = 40)

1. Bone anchored hearing aids.
2. Desired Sensation level.
3. Electroacoustic characteristics of hearing aid with ear mould.
4. Importance of measuring EAC of hearing aids.
5. Groth's approach.
6. FIG 6.
7. Distinguish between auditory vs Visual vs tactile modality.
8. Importance of early identification of hearing impairment.

III. Short Answers on:

(10 x 3 = 30)

1. Extended low frequency amplification.
2. PILL.
3. IROS.
4. Scale Adapt.
5. Barny – five state method.
6. Total communication.
7. Modular hearing aids.
8. Compression ratio.
9. WRDC.
10. Importance of binaural amplification.

B.Sc. AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY

SECOND YEAR

**PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II**

Q.P. Code: 802315

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Factors affecting outcome in the rehabilitation of hearing impaired.
2. Instrumentation for measuring electro - acoustic characteristics in different types of hearing aids.
3. Prescriptive procedures in hearing aid selection.

II. Write notes on:

(8 x 5 = 40)

1. NAL.
2. Directional hearing aids.
3. Functional Gain.
4. Head shadow effect.
5. Computer aided teaching method for HI.
6. Articulation Index.
7. IHAF.
8. Parent Infant Training program.

III. Short Answers on:

(10 x 3 = 30)

1. Wing Symbols.
2. Compression Threshold.
3. FROS.
4. Frequency transposition.
5. Apple Tree Program.
6. Preferential seating of hearing impaired.
7. Maternal Reflexive method.
8. Cues perceived through tactile modality.
9. POGO.
10. Reverberation in classroom affecting performance of the hearing impairment children.

[LH 0815]

AUGUST 2015

Sub. Code: 2315

B.Sc. AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY

SECOND YEAR

**PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II**

Q.P. Code: 802315

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Explain prescriptive and comparative procedures for Non-Linear hearing aid selection.
2. Explain different types of compression available in Digital hearing aids.
3. Explain various factors for setting up a classroom for hearing impaired children.

II. Write notes on:

(8 x 5 = 40)

1. Classification of hearing aids according to ISI standards.
2. Extended low frequency amplification.
3. Different types of educational placement for hearing impaired children.
4. Apple tree method of language teaching.
5. Tadoma.
6. Goals for aural rehabilitation.
7. OSPL90 and gain of hearing aid.
8. Insertion gain measurements.

III. Short Answers on:

(10 x 3 = 30)

1. Indian sign language.
2. Cued speech.
3. Maternal reflective method.
4. Digital signal processing.
5. Hearing aids for infants.
6. John Tracy clinic program.
7. Master hearing aid.
8. Functional gain.
9. Binaural hearing aids.
10. Soft ear mould.

B.Sc. AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY

SECOND YEAR

**PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II**

Q.P. Code: 802315

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on: **(3 x 10 = 30)**

1. Explain various criteria for recommending the educational placement of a hearing impaired child using suitable examples.
2. Explain various pre selection factors that need to be considered before fitting a hearing aid.
3. Name different electroacoustic characteristics that can be measured from Behind the Ear hearing aid and explain them.

II. Write Notes on: **(8 x 5 = 40)**

1. Compare and contrast unisensory with multisensory approach.
2. Peak clipping.
3. Functional gain.
4. Directional hearing aids.
5. Early identification of hearing loss.
6. Natural method of language teaching.
7. Parent Infant training Program.
8. Total communication.

III. Short Answers on: **(10 x 3 = 30)**

1. Treble increase at low level.
2. Reverberation time.
3. Rooting of signals.
4. Articulation index.
5. ADIP scheme.
6. Bone anchored hearing aid.
7. Anechoic chamber.
8. Any two goals of rehabilitation.
9. Preferential seating of hearing impaired child.
10. Modular hearing aids.

B.Sc. AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY
SECOND YEAR
PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II

Q.P. Code: 802315

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Importance of early identification and rehabilitation for hearing impairment.
2. Explain the parts of bone anchored hearing aid with a neat diagram along with candidacy.
3. Discuss about the educational problems faced by children with hearing impairment.

II. Write notes on: **(8 x 5 = 40)**

1. Explain frequency transposition and the need to do it.
2. Neat labeled diagram of test box.
3. Explain Articulation index.
4. Purpose of measuring EAC of hearing aids.
5. APPLE TREE method.
6. Any one loudness normalization method to prescribe gain in the hearing aid.
7. Discuss about preferential seating in a classroom for a child with hearing impairment.
8. Diagram, candidacy and working of transcranial CROS.

III. Short answers on: **(10 x 3 = 30)**

1. Expand ISI, IEC, ANSI.
2. Peak clipping.
3. Explain 60dB rule for mono-aural hearing aid fitting.
4. TADOMA.
5. Speech spectrum.
6. Wing's Symbols.
7. Types of manual communication.
8. Partial integration.
9. Head shadow effect.
10. Types of hearing aid.

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PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II**

Q.P. Code: 802315

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Use of Prescriptive procedures in selection of hearing aids.
2. Compare the methods of teaching language to the hearing impaired.
3. Measurement of electro- acoustic characteristics in hearing aids.

II. Write notes on:

(8 x 5 = 40)

1. Mother's training program.
2. CROSS hearing aids.
3. Articulation Index.
4. Correspondence programs for the hearing impaired.
5. Multisensory approach.
6. IHAF.
7. Various Government schemes for procuring hearing aids.
8. Importance of early identification.

III. Short answers on:

(10 x 3 = 30)

1. TADOMA method.
2. SKI – HI.
3. Patterning.
4. TILL.
5. Comment about preferential seating in an educational set-up for children with hearing impairment.
6. Sensitivity period.
7. SEE – I.
8. Critical age concept.
9. NAL.
10. Equivalent input noise.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY

SECOND YEAR

**PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II**

Q.P. Code: 802315

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Highlight the Educational Program for the parents of the hearing impaired.
2. Factors in the selection and fitting of hearing aids.
3. Analysis of electro acoustic characteristics of hearing aids.

II. Write notes on: **(8 x 5 = 40)**

1. Fitzgerald key.
2. Unisensory versus Multisensory approach.
3. Peak clipping.
4. Criteria for recommending various educational placement of hearing impaired.
5. Master hearing aids.
6. Natural method.
7. Bone anchored hearing aid.
8. Factors affecting oral form of communication.

III. Short answers on: **(10 x 3 = 30)**

1. Hearing aids for conductive hearing loss.
2. Frequency transposition.
3. Wing symbols.
4. Head shadow effect.
5. SEE – II.
6. Binaural amplification.
7. BILL.
8. POGO.
9. Rochester method.
10. OSPL – 90.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
SECOND YEAR

PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II

Q.P. Code: 802315

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Compare and contrast Analog, programmable and digital hearing aids.
2. Factors to be considered in setting up of classroom for the hearing impaired.
3. Comparative procedures in hearing aid selection.

II. Write notes on: **(8 x 5 = 40)**

1. Acoupedic approach.
2. Selection of hearing aids for adults with recruitment.
3. Changes in electro acoustic characteristics of hearing aid due to ear mould.
4. Types of manual communication.
5. Parent Infant training program.
6. Computer aided teaching methods for hearing impaired.
7. Directional hearing aids.
8. Uni-sensory approach.

III. Short answers on: **(10 x 3 = 30)**

1. BI – IROS.
2. APPLE TREE.
3. Speech spectrum.
4. Advantages of natural method over structural method.
5. Disadvantages of Fitzgerald key.
6. Total communication.
7. Cued speech.
8. PILL.
9. DSL.
10. Total Harmonic Distortion.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY

SECOND YEAR

**PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II**

Q.P. Code: 802315

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Educational Placement of hearing impaired children.
2. Methods of teaching language to hearing impaired.
3. Classification of Hearing Aids and its advantages.

II. Write notes on:

(8 x 5 = 40)

1. Types of CROS Hearing Aid.
2. Multisensory approach.
3. Parent Infant Training Program.
4. Amplification options for Conductive hearing loss.
5. Manual Communication.
6. IHAF.
7. Insertion gain measurements.
8. Government schemes for procuring hearing aids.

III. Short answers on:

(10 x 3 = 30)

1. Standing Wave.
2. Monaural vs Binaural hearing aids.
3. Word recognition scores.
4. Head shadow effect.
5. Master hearing aids.
6. Damping.
7. Fitzgerald key.
8. Types of ear moulds.
9. BILL.
10. Modular Hearing Aids.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
SECOND YEAR

PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II

Q.P. Code: 802315

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Elaborate on Analog vs Digital hearing aid with its advantages and disadvantages.
2. Importance of early identification and rehabilitation of Hearing impaired.
3. Factors to be considered in selection and fitting of hearing aid in pediatric as well as adult population.

II. Write notes on:

(8 x 5 = 40)

1. Articulation index.
2. Desired sensation level.
3. Types of receivers.
4. Extended low frequency amplification.
5. Peak chipping.
6. Functional Gain.
7. Compression characteristics.
8. Speech banana.

III. Short answers on:

(10 x 3 = 30)

1. Factors in fitting hearing aid to geriatrics.
2. Indian Sign Language.
3. Anechoic chamber.
4. POGO rule.
5. Venting.
6. Types of couplers.
7. Maternal Reflexive method.
8. TILL.
9. TADOMA.
10. Hearing aids for sightless.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
SECOND YEAR

PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II

Q.P. Code: 802315

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Factors to be considered in setting up classroom for hearing impaired.
2. Prescriptive vs Comparative procedure in hearing aid selection.
3. Highlight the Educational Program for the parents of the hearing impaired.

II. Write notes on:

(8 x 5 = 40)

1. Apple tree method.
2. Importance of early identification.
3. Computer aided method.
4. Extended low frequency amplification.
5. Total communication.
6. Unisensory versus Multisensory approach.
7. Functional vs insertion gain.
8. Goals for aural rehabilitation.

III. Short answers on:

(10 x 3 = 30)

1. Wing symbols.
2. Cued speech.
3. Importance of reverberation with reference to hearing impaired.
4. Disadvantages of Fitzgerald key.
5. Name the instruments used for electro acoustic measurements of hearing aids.
6. Body baffle effect.
7. Total Harmonic Distortion.
8. Hearing aids for infants.
9. Rochester method.
10. Factors in fitting hearing aid to geriatrics.

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Q.P. Code: 802315

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Electro acoustic characteristics in hearing aids.
2. Educational problems of children with hearing impairment in India.
3. Explain about different signal processing in hearing aids.

II. Write notes on:

(8 x 5 = 40)

1. Various schemes for procuring hearing aids under Government of India/State.
2. Advantages of binaural amplification.
3. Auditory approach vs tactile approach.
4. Total harmonic distortion and inter modulation distortion.
5. Routing of signals.
6. Master hearing aids.
7. Box technique.
8. Different styles of hearing aid.

III. Short answers on:

(10 x 3 = 30)

1. RECD.
2. IHAF.
3. Bi CROS.
4. Rochester method.
5. BAHA.
6. Compression threshold.
7. Analog hearing aids.
8. Hearing aids for conductive hearing loss.
9. Speech spectrum/Speech banana.
10. NAL.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0321]

MARCH 2021

Sub. Code: 2315

(AUGUST 2020 EXAM SESSION)

BACHELOR IN AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY

SECOND YEAR (Regulation 2010-2011)

**PAPER V – TECHNOLOGY AND MANAGEMENT FOR PERSONS WITH
HEARING IMPAIRMENTS - II**

Q.P. Code : 802315

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Criteria for recommending various educational placements for children with hearing impairment.
2. Explain about different prescriptive procedures for linear hearing aids.
3. Explain about preferential seating and adequate illumination.

II. Write notes on:

(8 x 5 = 40)

1. Explain about compression in hearing aids.
2. Auditory approach vs visual approach.
3. Draw a neat diagram of test box for electroacoustic measurements in hearing aids.
4. Parent infant training program.
5. Box technique.
6. Articulation index.
7. Hearing aids for recruiting ears.
8. Various schemes for procuring hearing aids under Government of India/State.

III. Short answers on:

(10 x 3 = 30)

1. TADOMA.
2. FOG.
3. DSL.
4. CROS.
5. BILL.
6. REUR.
7. Bone conduction hearing aids.
8. Peak clipping.
9. Monaural amplification.
10. Directional hearing aids.
