OC 010 (Sp & Hg)

III Semester B.Sc. Examination, **November/December 2006**
(Scheme : ISS)
Speech and Hearing
Maxillofacial Anomalies and Laryngectomy

Time ; 2 Hours   Max. Marks : 50

Instruction : *Answer all questions.*

I. 1. a) Describe the embryological causes for the cleft lip.   4

   b) Discuss Karnhan and Stark's classification for median cleft palate with median cleft lip.   6

   OR

   2. a) Describe the anatomy of lips with neat diagram.   3   .

   b) Explain the role of different instruments used in the assesment of VPD. 7

II. 3. a) Differentiate between modified tongue anchor technique and Nasal flutter test.   '   5

   b) Elaborate on the different types of feeding appliances used for a child with cleft palate.   5

   OR

   4. Discuss the articulatory problems seen in children with unrepaired cleft palate. 10

III. 5. a) Describe the various types of muscle training procedures used in reducing hypemasality.

   b) Name the speech appliances used with cleft palate children.   2

   OR

   6. a) Describe the effect of mandibulectomy on speech.   5

   b) Define prosthesis. Discuss the indications and contraindications for the selection of prosthetic devices.   5

IV. 7. Write short notes on :

  a) Near total laryngectomy.   4

  b) Pretherapy assesment procedure in laryngectomized patients.   6

                    OR

  8. Write an essay on associated problem seen in laryngectomees.   10

V. 9. a) How do you teach speech to a laryngectomee using artificial larynx ?   7

    b) Describe with a neat diagram, the Anatomy of P.E. segment.   3

  10. What factors would you consider in the selection of vocal rehabilitation
       techniques for patients with laryngectomy ? 10

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OC 020 (Sp & Hg)

III Semester B.Sc. (Sp. & Hg.) Examination, Nov./Dec. 2006
(Semester Scheme)
Speech and Hearing
Phonological Disorders

Time : 2 Hours   Max. Marks : 50

Instructions *: Answer all the questions.*

I.   1) Describe the manner of articulation with examples.   10

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   2) a) Define articulation, vowels and comonants.   3

   b) Write a note on Cardinal vowels.   7

II. 3) a) List the factors affecting the development of articulation.   4

   b) Describe the acoustic characteristics of stops and nasals.   6

OR

   4) a) Define distinctive features.   2

   b) Describe the application of distinctive features in the field of speech &
       hearing.   8

III. 5) Campare and contrast

   a) Phonetic Vs. Phonemic disorders   5

   b) Overbite Vs underbite teeth.   5

   6) a) List the neurological disorders and causes of Articulation.   2

   b) Describe the different types of phonological process.   8

IV. 7) Describe the classification of articulation tests. List the advantages and
       disadvantages of each tests.   10

8) a) What is pattern analysis ? 4

b) Describe the articulatory and prosodic problems associated in children with cerebral palsy. 6

V. 9) Write a note on :

a) Electropalatography. 5

b) Metaphon therapy. 5

OR

10) a) List the criteria to select the target sound for articulation therapy. 3

b) Write a lesson plan for a 10 year old child with misarticulation of

.| S |,| K |, | g I, | L | & | r | sound. 7

OC 030 (Sp & Hg)

III Semester B.Sc. Examination, Nov./Dec. 2006
(Semester Scheme)
Speech and Hearing
Diagnostic Audiology: Behavioural Tests

Time: 2 Hours   Max. Marks: 50

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Instruction : Answer all the questions,

I.   1) Discuss the importance of case history in differential diagnosis of cochlear and
         retro cochlear pathologies.   10

                    OR

     2) Discuss the need for a tut battery approach in differential diagnosis of auditory
         disorders.   10

II. 3) A 30 yr. old female has a mild SN hearing loss in the right ear and normal
        hearing in the left ear
        a) Describe two tests you would administer for differential
            diagnosis of cochlear and retro cochlear pathology.   6
        b) Justify the choice of your tests.   4

                    OR

     4) Discuss the usefulness of Bekesy audiometry in defferential diagnosis of auditor)'
        disorders.   10

III. 5) Audiogram of a 35 yr. old male shows profound hearing loss in both ears.

        a) Describe a speech test that can be used to rule out functional hearing loss in
            this subject.   5

        b) List the merits and demerits of the test.   5

     6) What tests would you administer to detect functional hearing loss if you had
         only a pure-tone audiometer ? List the merits and cemerits of each of the tests. 10

IV. 7) a) Compare and contrast dichotic digit test and competing sentence test. 5

b) Compare and contrast low pass filtered speech test and time compressed speech test. 5

OR

8) Critically evaluate the statement "Only speech tests are useful in evaluating subjects with Auditory Processing Disorders". 10

V. 9) What findings would you expect in a subject with temporal lobe lesion in the dominant hemisphere on the following tests. 2x5

a) Filtered speech test

b) Dichotic CV test

c) MLD

d) Pitch pattern test

e) RASP

OR

10) Discuss the subject related factors that affect evaluation of auditory processing disorders. - - 10

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OC 040 (Sp & Hg)

III Semester B.Sc. (Sp. & Hg.) Examination, Nov./Dec. 2006
(Scheme : I.S.S.)
Speech and Hearing
Educational Audiology

Time : 2 Hours   Max. Marks : 50

Instruction : Answer all questions,

I. 1) Early identification of hearing impairment in India is a difficult task. Discuss,   10

OR

2) a) State the importance of 'critical period concept' in aural rehabilitation.   5

b) "Communication is the essence of rehabilitation in all hearing impaired children." - Discuss.   5

II. 3) Compare and contrast oral language with sign language. State the merits and demerits of each.   10

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4) a) What is the philosophy of acoupedic approach ?   2

b) Differentiate between unisensory and multisensory approaches in aural rehabilitation.   8

III. 5) What are the different methods of teaching language to the hearing impaired ?   10

OR

6) Describe in detail, Van Uden's maternal reflective method.   10

IV. 7) What are the educational options available for the hearing impaired at different ages in India ?   10

OR

8) Define mainstreaming. What are the factors that should be considered for successful mainstreaming of hearing impaired children ?   10

V. 9) How will you counsel teachers in a regular school regarding placement of hearing impaired child in his/her class ?   5

Explain the importance of home training to rehabilitate hearing impaired child.   5

10) How will you set up an ideal classroom for the hearing impaired ?   6

Prepare a lesson plan to teach the concept of "big and small" for a preschool child with hearing impairment.   4

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III Semester B.Sc. Examination, NovJDec. 2006
(Semester Scheme) .
Speech and Hearing
Biomedical Instrumentation and Acoustics

Time : 2 Hours   .Max. Marks : 50

Instruction: Answer all questions.

I. 1. a) What are active and passive elements explain with examples.   3

   b) What is the importance of a UJT in a thyristor built circuit. Explain.   4

   c) Quote a few applications of 7 segment LED's and LCD's.   3

   2. a) With a neat block diagram explain a DC power supply.   4

   b) Define line regulation and load regulation with respect to a linear regulator. 3

   c) Differentiate between LSI and VLSI circuits in digital Integrated circuit. 3

II. 3. a)   Differentiate between pitch and intencity of a sound signal.   3
                                                                                 4
   a   b) What are the different properties that assess the quality of sound. Explain.

   c) Derive Sabine's formula.   3

                          OR

   4. a) With a neat sketch explain the piezoelectric type of microphone.   4
   b) Discuss the advantages and limitations of magnetic tape recording.   3
   c) Explain the importance of frequency response of a audio amplifier.   3
III. 5. a) Why are NAND and NOR gates called universal gates. Explain.   4

   b) Write the symbol and truth table of a Ex-OR gate.   2

   c) Explain with a neat circuit and truth table a Flip-Flop operation.   4

                          OR

6. a) What do you mean by High Level Language. 3

   b) What are volatile memories. Is Harddisk a volatile memory ? Explain. 4

   c) What are the specifications which should be supplied to while purchasing a personnel computer. 3

IV. 7. a) What is the function of a Transducer in an electronic Instrument ? List the different Transducers you have come across in speech and hearing instruments. 5

   b) What type of filter is best suited for speech signal explain. 5

OR

8. a) With neat sketch explain working of immittance meter. 5

   b) Explain the principle of operation of electro-acourtic impedence bridge with a neat sketch. .5

V. 9. a) List the disadvantages of analog signal processing over Digital Signal processing. 5

   b) Differentiate between IIR and FIR systems. 5

OR

10. a) With a neat sketch explain any one type of ADC. 5

    b) Digital signal processing plays a major role in speech and hearing field. Justify on this statement. 5

O C 0 6 0 (S p & H g)

III Semester B.Sc. Examination, Nov./Dec. 2006
(Scheme : Semester)
Speech and Hearing
Statistics and Research Methods

Time : 2 Hours   Max. Marks : 50

I. 1) Describe applications of statistics in speech and hearing.   10

OR

2) Enumerate scales of measurements. What are the properties of a good scale of measurement?   10

II. 3) What is random sampling ? Enumerate any four methods of random sampling with their merits and demerits.   10

OR

4) Describe graphical presentation of data.   10

III. 5) Describe any three measures of central tendency and dispersion. Enumerate merits and demerits of each one of them.   10

OR

6) Compute arithmetic mean and standard deviation for the following data.   **10**

Weight (in Kgs)	Number of children
20-22	50
22-24	70
24-26	95
26-28	100
28-30	90
30-32	60
32-34	35
Total	500

IV. 7) Compute product moment correlation coefficient for the following data.   10

       X :   155   158   160   162   163   166

       Y :   58   63   69   70   70   73

OR

   8) a) Define: i) Sampling error

                ii) Level of significance

                iii) P-Value.   3

     b) Describe the procedure of testing the difference between two means.   7

V. 9) Briefly describe group designs in research in the area of Sp & Hg.   10

    OR

10) Discuss structure of a research report.   10

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