OC 010 (Sp & Hg)

II B.Sc. (III Semester) Examination, Nov./Dec. 2003

Speech and Hearing
Maxillofacial Anomalies and Laryngectomy

Time:2Hours   Max.Marks:50

Instruction: *Answer all questions.*

I . . 1 . a) Describe the embryological development of palate.

    b)   Explain   the   yeau's   classification   of   cleft   palate.   4

2. a) Define VPD. Write the classification of VPD.   5

    b) Describe different types of compensatory articulation seen in children with unrepaired cleft palate.   5

3.   Write in brief on:

    a) Electropalatogram.   4

    b) Feeding appliances'

    c) Language problems seen in children with cleft palate.   2

4. a) Describe Angle's classification of dental anomalies.   5

    b) Write any two syndromes associated with cleft palate.   5

III. 5. a) Write the effect of glossectomy on speech.   6

    b)   Write   a   brief   note   on   speech   appliances.   4

<div align="center">OR</div>

6. a) Write on the direct muscle training procedure to improve the palatal movement.   5

    b) Discuss in detail any one of the techniques to reduce hypernasality.   5

IV. 7. Write short notes on:

    a) Partial laryngectomy.   4

    b) Near total laryngectomy.   .   .   4

    c) Symptoms of laryngeal cancer.   2

    OR

8. Write the anatomical, behavioral and psychological changes due to laryngectomy.   10.

V. 9. Write short notes on:

    a) Ultra voice.   3

    b) Gastric speech.   4

    c) Buccal speech.   *5*

<div align="center">OR</div>

10. Differentiate:

    a) Panje voice Button VsBlom Singer prosthesis.   5

    b) Consonant injection Vs inhalation method. 5

OC 020 (Sp&Hg)

III Sem. II B.Sc. (Sp & Hg) Examination, Nov./Dec. 2003
(Integrated Semester Scheme)
Speech and Hearing
Phonological Disorders

Time : 2 Hours   .   Max. Marks : 50

Instruction: Answer all questions.

I. 1. Define articulation. Describe the articulation of different vowels.   10

    2. a) What are prelinguistic skills ?   2

       b) Explain any one theory of prelinguistic development.   8

II. 3. a) What are the various distinctive feature systems ? Enumerate with examples.   7

       b) List three factors affecting the development of articulation.   3

    4. Explain the articulatory-acoustic relations of vowels.   10

III. 5. a) Define misarticulation.   2

       b) Differentiate between phonological vs phonetic disorders with clinical examples.   4

       c) Children with hearing impairment are more like to manifest phonetic errors
           in their speech. Do you agree with this ? Justify your answer.   4

                          OR

    6. a) Differentiate misarticulations of structural disorders from sensory disorders.   6

       b) Explain the articulatory characteristics in neurological disorders.   4

IV. 7. a) What are the different modes of articulation testing?   .   8 .

       b) What is screening articulation test ?   2

                      OR

    8. Classify articulation tests. Explain deep test of articulation in detail.   10

V. 9. a) What is articulation therapy ? Describe any one articulation therapy technique.   .5

       b) Are instruments necessary in articulation therapy ? Under what circumstances
           and for what purpose would you employ instruments in articulation therapy ?   5

                      OR

    10. a) Discuss the merits and demerits of linguistic approach to the correction of
           phonological errors.   6

       b) Illustrate phonetic placement method with suitable   example.   4

OC 030 (Sp&Hg)

II B.Sc. (Ill Semester) Examination, November/December 2003

(I.S.S.)

Speech and Hearing
Diagnostic Audiology : Behavioral Tests

Time: 2 Hours   Max. Marks: 50

Instructions: *Answer all questions. Use illustrations **where** necessary.*

I   1.   a)   List the various tests available to an audiologist for identifying and differentially
              diagnosing a cochlear pathology. Describe the rationale for 4 of these tests.   6

         b)   What tests are a part of the test battery for identifying functional hearing loss ?
              Justify the selection any of two tests of this battery.   ,   4

                          .   O   R

     2.   Audiometric configuration is not sufficient for a final diagnosis of audiological
          condition.-Discuss.   10

II   3.   a)   .What is meant by differential diagnosis ? Why do you need to do this between
              CPandRCP?   4

         b)   Comment on SISI and its clinical relevance.   6

     4. Describe the procedure of PI-PB test. What is the rationale of this test and how do
        you justify the inclusion of this particular test in your battery approach.   10

III 5. a) Briefly describe any one test for pseudohypacusis designed for children.   5

       b)   Write a note on "tone in noise" test.   5

     6.   a)   Define pseudohypacusis and its clinical relevance.   5

         b)   What are the various puretone tests used to identify this condition ?   5

IV 7. a) Describe the symptom complex of APD.   6

       b)   Explain the terms'internal'and'external'redundancy with examples.   4

_   **OR**

     8.   Explain the principle of dichotic speech tests. Write briefly on any 2 of these tests
          and discuss their merits and demerits.   10

V. 9.   a)   How do subject-related factors affect results of tests for APD?   5

         b) Can an audiologist localize lesions in individuals with APD using audiological
            tests ? Justify your answer.   5

                        OR

     10. a) What tests are available to identify APD in children ? Describe the functions
            assessed by these tests.   6

         b)   How would you detect interhemispheric dysfunction   ?   4

OC 040 (Sp&Hg)

II B.Sc. (Sp. & Hg.) (Ill Semester) Examination, Nov./Dec. 2003
(ISS Scheme)
Speech and Hearing
Educational Audiology

Time: 2 Hours   .   Max. Marks: 50

Instructions : *Answer all questions.*

I. 1) a) What is aural rehabilitation ?   2

b) What are goals of aural rehabilitation ? and state the factors that determine these goals. 8

OR

2) a) Is "verbal communication" an important goal of rehabilitation in all hearing impaired children ?   5

b) Suggest a cost-effective screening tool to identify children with hearing impairment.   5

II. 3) Critically discuss oral-aural method.   10

OR

4) a) What is sign language ?   .-   2

b) Bring out the merits and demerits of the use of sign language in the rehabilitation

III. 5) Compare and contrast natural method and structural methods of language teaching to highlight their merits and demerits.   10

6) a) Describe briefly computer aided method used for teaching language to the hearing impaired..   5

b) Describe Fitzgerald key method.   5

IV. 7) a) What is the need for preschool training ?   3

b) How will you set up an ideal preschool training centre for hearing impaired children?   7

OR

8) a) Compare and contrast the day school Vs residential school placement for hearing impaired children.   5

b) Write a note on factors affecting outcome of preschool training programs.   5

V. 9) What are the various problems encountered in the Indian context regarding educational placement of hearing impaired child?   10

10) How will you counsel parents of a 5 years old hearing impaired child regarding:
.   i) Need for special school placement.   5
        ii) Importance of home training in successful rehabilitative   5

OC 050

II B.Sc. (III Semester) (Sp. and Hg.) Examination, November/December 2003
(Semester Scheme)
Biomedical Instrumentation and Acoustics

Time: 2 Hours   Max. Marks: 50

1.   a)   Explain how a transistor can work as an amplifier.   4

   b) How does a diode converts a.c. in to d.c.   3

   c) Write a short note on "Liquid Crystal Display (LCD)".   3

2.   a)   Explain the working of an UPS with a block diagram.   *5*

   b) Explain briefly the characteristics of a signal.   5

3.   a)   Write short notes on: 6

   i) Pitch   ii) Timbre

   b) Define absorption coefficient.   2

   c) Define acoustic impedance.   2

4. a) Explain why different loud speakers are used for different audio frequency bands in high power audio systems.   3

   b) Explain why moving coil microphones are not the right choice for recording music.   3

   c) Explain why balconies are prefered in large auditoriums rather than rows of seat arrangement.   4

5. a) Explain different types of memory devices used in computers.   *6*

   b) Distinguish between operating system and application software.   4

6. a) Write the truth table of a NAND gate.   2

   b) Convert binary number (010101) to hexadecimal to decimal system.   4

   c) Explain how a flipflop can be used to store a binary digit.   4

7. a) Explain the working of a computerised immittance meter with a block diagram.   9

   b) List out the names of a few sinusoidal oscillators.   1

                    OR

8. a) Explain the steps involved in the A.C calibration of pure tone audiometer. Illustrate the calibration setup.   .7

   b) Illustrate equipment setup for B.C calibration of pure tone audiometers.   3

9. a) Why do we prefer Digital signal processing in Hearing Aids?   5

   b) Explain the role of A to D and D to A converters in signal processing with reference to a hearing aid.   5

                    O R

10. a) Explain the concept of digital filtering.   4

   b) Mention the applications of digital filters in speech and hearing field.

   c) List out the advantages of FIR filters over llR filters.

——————————————————————

OC 060 (Sp & Hg)

II B.Sc. (Ill Semester) Examination, Nov./Dec. 2003
(ISS Scheme)
Speech and Hearing
Statistics and Research Methods

Time: 2 Hours-

Max. Marks : 50

Instruction: *Answer all questions.*

I. 1) Define statistics. Explain the use of statistics in the field of speech and hearing. 10

2) a) Enlist and explain the important stages in statistical investigation. 8

   b) Describe the origin of the term "statistics". 2

II. 3) a) Describe the merits and limitations of representing statistical data through graphs and diagrams. 7

   b)' How is data represented by means of a pie diagram ? 3

OR

4) Evaluate the merits and demerits of different methods of data collection in the field of speech and hearing. 10

III. 5) a) Define standard deviation. 3

   b) What is combined mean ? The mean vocabulary scores of 30 boys is 64 and 27 girls is 72. Find their combined mean. 4

   c) Mention the major differences between skewness and kurtosis. 3

6) a) Calculate the Pearson's Coefficient of skewness for the following data: 6

   X. *12* 16.   16   26   31   39

   b) Define probability. Explain classical or apriori probability. 4

IV. 7) a) Calculate the correlation coefficient between the following two variables using Karl Pearsons method: 5

X :	9	8	7	6	5	4	3	2	1
Y :	15	16	14	13	11	12	10	8	9

   b) Explain the meaning and significance of correlation. 3

   c) State the applications of students "t" test. 2

OR

8) The following table gives the distribution of 150 cases of mental retardation seen in a CGC with reportedly five different causes:

Sex/Causes	Cause A	Cause B	Cause C	Cause D	Cause E
Males	18	23	41	17	27
Females	32	17	19	23	13

Apply a chi square test to verify whether any statistically significant differences exist for the above mentioned data.   .   10

V.   9)   a) What are research designs ? Differentiate between single and multiple subject research designs.   5

 b) Define measurement. Highlight the importance of measurement in the context of research in the field of speech and hearing.   .   5

.   O R

   10) a)   Attempt an essay on various types of research designs as applicable to the field of speech and hearing.   9

 b). What are ABA research designs ?   1