OC 010 (Sp & Hg)

III Semester B.Sc. (Sp & Hg) Examination, Nov./Dec. 2007
(Semester Scheme)
Maxillofacial Anamolies and Laryngectomy

Time: 2Hours   Max. Marks : 50

Instruction : Attempt all questions.

I. 1) Describe the multiffactor theory of cleft lip and palate.   10

2) Describe the different types of compensatory articulation seen in children with cleftpalate.   -   10

II. 3) Describe the various sections of a cleft palate protocol giving suitable illustrations.   10

4) a) Write a note on various dental problems seen in children with cleft palate.   5

   b) Describe the role of instrumentation in the evaluation of hyper nasality.   5

III. 5) Describe the rehabilitation procedure for an unoperated cleft palate subject aged 36 years and justify your answer.   -   10

OR

6) a) What are the common articulatory problems seen in clients with mandibulectomy.   5

   b) Describe different techniques used to facilitate velo-pharyngeal competence.   5

IV. 7) Describe the post-operative complications seen in total laryngectomee subjects.   10

OR

8) Write a short note on the following :

   a) Air insufflation test   3

   b) Subglottic cancer   -3

   c) Signs and symptoms of laryngeal cancer.   4

V. 9) Compare and contrast esophageal speech, TEP speech and artificial larynx mode of rehabilitation.   10

OR

10) Write a note on :
   a) Near total laryngectomy   5
   b) Gastric speech. 5

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OC 020 (Sp & Hg)

III Semester B.Sc. Examination, Nov./Dec. 2007
(Integrated Semester Scheme)
Speech and Hearing
Phonological Disorders

Time: 2 Hours   Max. Marks: 50

Instruction : *Answer all the questions.*

I. 1) Classify speech sounds on the basis of manner of articulation and describe each group.   10

OR

2) Define articulation. Describe the production of palatal and nasal sounds with neat diagrams.   10

II. 3) a) What are the different acoustic cues for vowels and stop consonants ?   6

b) List the factors that influence the development of articulation.   4

OR

4) a) Describe the acoustical characteristics and physiological basis of production of fricative consonants.   8

b) Give an example each for strident and non strident fricatives.   2

III. 5) a) Differentiate between phonetic and phonological disorders.   6

.b) What are the causes of misarticulation ?   4

6) a) Describe in brief the articulatory errors in dysarthria.   6

b) Define lisping and rhotacism.   4

IV. 7) Explain the procedure that you would adopt in the assessment of a 5 year old child with misarticulation of speech sounds.   10

8) What is pattern analysis ? Explain different types of pattern analysis.   10

V. 9) a) On what basis are the target sounds selected for correction of misarticulation inachild? 4

   b) List the short term goals and activities to improve resonance in a child with repaired cleft palate. 6

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

10) Write short notes on : (5+5=10)

   a) Metaphon therapy

  b) Electropalatogram.

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OC 030 (Sp & Hg)

III Semester B.Sc. Examination, Nov./Dec. 2007
(S c h e m e : I S S)
Speech and Hearing

Diagnostic Audiology : Behavioral Tests

Time : 2 Hours   . Max. Marks : 50

Instructions : 1) *Answer all questions.*

2) *Use illustrations* **where** *necessary.*

I. 1) A 45 year old woman has a complaint of gradually diminishing hearing bilaterally with occasional giddiness and tinnitus. What tests would you do to diagnose the condition and why ?   10

OR

2) a) Briefly describe the tests used to diagnose a retrocochlear pathology.   6

b) Justify the test battery approach to diagnosis.   4

II. 3) a) Write a note on brief tone audiometry. How is it relevant in present day audiology diagnostics ?   -   6

b) What is the rationale behind tests for adaptation ? Give 2 examples for the

same.   4

OR

4) Write a brief essay on Bekesy audiometry and its various clinical applications. 10

III. 5) a) How do you identify a person with pseudohypacusis without doing formal tests ?   2

b) What are the different 'speech' tests for identifying pseudohypacusis ? Give a brief description of each of these tests.   6

c) Explain the term "functional overlay" with a suitable example.   2

OR

6) a) Write a short note on the Stinger Test.   5

b) Discuss functional hearing loss in children.   **5**

IV. 7) a) What do you understand by the term "bottle-neck" principle ?   2

      b) How does a teacher identify a child with CAPD in the class room ?   4

      c) What are 'low-redundancy' tests ? Discuss the rationale behind the same.   4

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

   8) Describe the pitch pattern test pertaining to the principle, procedure, scoring and interpretation.   10

V. 9) a) What factors need to be taken care of prior to APD testing ?   8

      b) What are the results of MLD test in brainstem lesions ?   2

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

   10) How can the APD tests be used to differentially diagnose pathologies at various levels of the central auditory pathway ?   10

OC 040 (Sp & Hg)

III Semester B.Sc. (Sp & Hg) Examination Nov./Dec. 2007
(Scheme : ISS)
Speech and Hearing
Educational Audiology

Time: 2 Hours   Max. Marks: 50

Instruction : *Answer all questions.*

I. 1) Discuss the various factors which determine the success of aural rehabilitation
        of a child with hearing impairment.   10

                                OR

    2) Discuss in detail "Earlier the detection and intervention of hearing impairment,
       better are the chances for verbal communication".   10

II. 3) Explain in detail the difference in approach between :   10

        a) Integration and segregation

        b) Oral aural and total communication.

                                OR

    4) Explain in detail the difference between prelingual and postlingual deafness
        and their rehabilitative management.   10

III. 5) What is multisensory stimulation ? Explain with reasons, when multisensory
        approach is preferred to unisensory approach while dealing with hearing
        impaired children.   10

                                OR

    6) Discuss the relevance of advocating sign language for the rehabilitation of
       the children with hearing impairment in the Indian context.   10

IV. 7) What are the different methods of teaching language to the hearing impaired ? 10

    8) Compare and contrast natural method vs. structured method. 10

V. 9) Write an essay on educational problems of hard-of-hearing in India. 10

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    10) a) Explain the concept of preschool training. Discuss its importance in rehabilitation of a child with hearing impairment . 6

        b) Explain the importance of correspondence programs in rehabilitation of children with hearing impairment. 4

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III Semester B.Sc. Examination, Nov./Dec. 2007
(Integrated Semester Scheme)
Speech and Hearing
Biomedical Instrumentation and Acoustics

Time : 2 Hours   Max. Marks : 50

Instruction *: Answer all questions.*

I. 1. a) How does a potentiometer work ? Explain its use in a hearing aid.   4

   b) Explain the working of a seven segment LCD. Mention, its application in an audiometer.   4

   c) List any four applications of a semiconductor diode.   2

   2. a) Which type of power supply is used inside a personal compuier ? Explain its working.   4

   b) With supporting diagrams, explain the difference in operation of an UPS and an inverter.   4

   c) Mention the function of a filter in a DC power supply.   2

II. 3. a) Explain why a single loudspeaker cannot be used to cover the entire audio frequency range.   4

   b) Which type of microphone is commonly used in sound level meters ? Why ? Explain its structure and working.   5

   c) Define the term equivalent input noise with reference to a microphone.   1

                    OR

   4. a) List the different techniques used for recording of sound. Explain any one of them with supporting diagrams.   6

   b) Define 'Timbre'. Explain the two principal factors that determine the timbre of a sound.   **4**

III. 5. a) List out the major specifications of a personal computer which you indent to purchase for your   clinic.   4

   b) List the different types of memory devices used in a personal computer. Explain the working and application of any one of   them.   4

   c) Differentiate between an operating system and an application software.   2

   6. a) Explain the working of a digital counter. Mention its application in a computerised audiometer.   5

   b) Write the truth table of an 'AND' gate.   3

   c) Define   a) Bit   b) Byte   **2**

IV. 7. a) Distinguish between a pre amplifier and a power amplifier. Explain the need for both these amplifiers in a hearing aid circuit.   5

   b) Name any one oscillator which can be used as a pure tone generator. Explain its working.   .   *5*

   8. a) With a neat functional block diagram, explain the working of a computerised audiometer.   9

   b)Define acoustic impedance.   1

V. 9. a) Why do we convert an analog signal to a digital signal ?   3

   b) List out the different types of A to D converters.   2

   c) Explain the working of an A to D converter which can be used in a digital hearing aid.   5

                         OR

   10. a) With reference to hearing aids, explain the advantages of digital signal processing.   5

   b) Distinguish between IIR and FIR filters.   5

OG 060 (Sp & Hg)

IIl Semester B.Sc. Examination, Nov./Dec. 2007
(Integrated Semester Scheme)
Speech and Hearing
Statistics and Research Methods

Time : 2 Hours   Max. Marks : 50

Instruction : Answer all questions.   -

I. 1) What is statistics ? Discuss its scope, functions and limitations as applied to
        the field of speech and hearing.   10

    2) a) Discuss the importance and relevance of various scales of measurement to
           the field of speech and hearing.   8

    2) b) Mention the names of different types of statistics.   2

II. 3) a) What is tabulation ? What are the advantages of tabulation ?   7

    3) b) Distinguish sampling from non-sampling errors.   3

                        OR

    4) Define sampling. Explain the different methods of sampling.   10

III. 5) a) The mean of a data series is 17.26. The standard deviation is 2.05. Find
            the coefficient of variation and variance.   3,

    5) b) Find the value of quartile deviation for the following data :   4

           RollNos. :   1   2   3   4   5   6   7

           Marks :   20   28   40   12   30   15   50

    5) c) Mention the requisites of a good average.   3

                        OR

    6) a) Calculate the median by grouping method from the following data : 6

10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
5	9	13	21	20	15	8	3

    6) b) State the meaning and applications of binomial theoretical distribution. **4**

IV. 7) a) Determine the significance of difference between two independent samples
whose measured parameters are as follows   .   5

    Mean : 120   Standard Deviation : 25   Sample size : 24

    Mean : 140   Standard Deviation : 38   Sample size : 18

  7) b) Mentions the merits and demerits of graphical methods of studying
correlation.   .3

  7) c) Differentiate between linear and nonlinear (curvilinear) correlation.   2

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  8) Find the coefficient of correlation between X and Y series :   10

X	57	42	40	33	42	45	42	44	40	56	46	43
Y	10	60	30	41	29	27	27	19	18	19	31	29

V. 9) a) What is ex post facto research ? Explain with suitable example.   **5**

  9) b) Outline the format of a research report.   5

OR

  10) a) Delineate the steps in formulating a research proposal for investigating
personality correlates of voice disorders.   9

  10) b) Define hypothesis.   1