

# OC010(SP&HG)

II B.Sc. (III Semester) Examination, Oct./Nov.2004  
(Speech & Hearing) (ISS)  
Maxillofacial Anomalies and Laryngectomy

Time: 3 Hours

Max. Marks: 50

*Instruction: Answer all questions.*

- I. 1. a) Describe the causes of cleft palate. 4  
b) Schematically represent the modified stripied-Y classification for unilateral cleft of the palate with velopharyngeal dysfunction. 6

OR

2. Write in brief on:  
a) ABNqVsSBNA 3  
b) Nasal snort Vs Nasal grimace 3  
c) Glottal stop Vs. Pharyngeal stops. 4

- II. 3. Describe in detail:  
a) Velocardiofacial syndrome 3  
b) Perceptual scales used in the assessment of resonance 4  
c) Dental problems in children with cleft palate. 3

OR

4. Explain the procedures to measure nasality. 10

- III. 5. a) Define "Prosthesis". Discuss the different types of prosthesis. 5  
b) Describe the various types of palatal stimulation techniques used in the rehabilitation of persons with cleft palate. 5

6. Describe the speech characteristics seen in patients who have undergone glossectomy and mandibulectomy. 10

- IV. 7. Differentiate between:  
a) Hemilaryngectomy Vs Near total laryngectomy. 5  
b) Highlight the anatomical changes seen after total laryngectomy. 5

OR

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8. a) Wepman's assessment scale for laryngectomy speech. 6  
b) Write the associated problems seen in laryngectomy. 4
- V. 9. a) Describe the post operative counselling for laryngectomy patients. 4  
b) Write in brief on:  
i) Air insufflation test 3  
ii) Ultra voice. 3

OR

10. Write an essay on acoustic characteristics of esophageal speech. 10

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## OC 020 (SP&HG)

II B.Sc. (III Semester) (Sp. & Hg.) Examination, October/November 2004  
(Integrated Semester Scheme)  
Phonological Disorders

Time: 2 Hours

Max. Marks: 50

**Instruction** : Answer *all* questions.

- I. 1. What is combinatory phonetics ? Describe the production of cardinal vowels. 10
- OR**
2. What are the different stages of phonological development ? 10
- II.** 3. a) What are distinctive features and its implications in articulation therapy ? 6  
b) What are the characteristics/ front formats of vowels ? 4
- OR**
4. a) Describe the acoustic characteristics of fricatives and nasals 10
- III.** 5. a) Explain Lipping. 2  
b) What are the types of misarticulations ? Give examples. 4  
c) How does hearing loss affect articulation ? 4
- OR**
6. a) What are the structural and motor causes for misarticulation ? 8  
b) What is rhotacism ? Give examples. 2
- IV.** 7. a) What are the factors influencing misarticulation ? 5  
b) Write the importance of oral motor examination in articulation assessment. 5
- OR**
8. Describe the articulatory errors seen in the speech of children with cerebral palsy . Give examples with reference to spastic and athetoid types. 10

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V. 9. Write short notes on :

- a) Multiple phoneme approach. 5
- b) Distinctive feature approach. 5

OR

10. Suggest a plan for articulation therapy for a 5 year old child with hearing impairment. Justify your goals w.r.t. 10

- 1) Developmental norm
- 2) Approach
- 3) Technique
- 4) Material development
- 5) Instruments.

# OC 030 (SP & HG)

III Sem. B.Sc. (Sp. & Hg.) Examination, Oct/Nov. 2004

(I.S.S. Scheme)

Speech & Hearing

Diagnostic Audiology : Behavioral Tests

Time : 2 Hours

Max. Marks: 50

**Instruction** : Answer **all** questions. Use illustrations where Necessary.

- I. 1) Can Diagnosis of auditory disorders be done on the basis of result of any one test ? Justify your answer. 10  
OR
- 2) a) What test battery would you prefer to use for conductive pathology and why ? 5  
b) What factors would determine the selection of various tests in a test battery ? Describe with an example. 5
- II. 3) Write an essay on recruitment. 10  
OR
- 4) a) How would you estimate BC thresholds without a BC vibrator ? 5  
b) Explain PIPB function and its role in diagnosis. 5
- III. 5) a) Explain the Stenger principle and its application in diagnostic audiology. 6  
b) Describe the rationale of tests for pseudohypacusis. 4
- 6) What are the different indicators of functional hearing loss in children ? How do you establish accurate thresholds in such a case ? 10
- IV. 7) a) What is meant by binaural integration ? Describe any 2 tests meant for the same. 5  
b) Write a note on S.S.W. 5  
OR
- 8) Discuss the design principles behind a test for Auditory processing disorders. 10
- V. 9) What factors would affect the assessment of auditory processing at higher levels ? 10  
OR
- 10) a) A 24 year old man with a confirmed low brain stem lesion comes to you for testing. What results would you expect on a dichotic speech test ? Justify your answer. 6  
b) Write a brief note on APD in the elderly. 4
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# OC 040 (SP&HG)

II B.Sc. (III Semester) Examination, October/November 2004  
(ISS Scheme)

## Speech and Hearing Educational Audiology

Time: 2 Hours

Max. Marks: 50

*Instruction : Answer all questions.*

- I. 1. Discuss the importance of early identification of hearing loss in aural rehabilitation. 10  
OR
2. a) Discuss the classification of hearing loss for educational purposes. 04  
b) Differentiate between hearing impairment, disability and handicap with reference to hearing loss. 06
- II. 3. a) Differentiate between sign language & contrived signing system. 05  
b) What do you understand by cued speech ? 05  
OR
4. Write an essay on total communication. 10
- III. 5. Describe in detail Van Uden's maternal reflective method. 10  
OR
6. Explain any one of the structured methods used for teaching language to the hearing impaired. 10
- IV. 7. Discuss the factors that are important in deciding the educational placements of hearing impaired children. 10  
OR
8. a) What is preschool training & what are its goals ? 04  
b) What are the components of preschool training programme ? Give examples. 04  
c) What is the difference between 'integrated' and 'inclusive' education ? 02
- V. 9. State the importance of correspondence courses in preschool training. 10  
OR
10. Successful mainstreaming is not an easy goal in an Indian context- Discuss your view point. 10
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# OC 050 (SP & HG)

II B.Sc. III Semester Examination, Oct/Nov. 2004

(ISS Scheme)

Speech & Hearing

Biomedical Instrumentation and Acoustics

Time : 2 Hours

Max. Marks : 50

*Instruction : Answer all questions.*

1. a) Explain the construction and working of an "inductor". 3
- b) Discuss any one application of "inductors" in hearing aids. 3
- c) Write a short note on UJT. 4

OR

2. a) Draw the block diagram of a DC power supply system and explain the working of each stage. 7
- b) Define : 3
  - i) Line regulation
  - ii) Load regulation
  - iii) Ripple factor
3. a) Define reverberation time. Explain the formula for calculation of reverberation time of a room. 4
- b) Distinguish between sones and phones. 3
- c) Define: 3
  - i) Intensity level
  - ii) Sound pressure level
  - iii) Sound power level.

OR

4. a) Describe, with reason, the right acoustic qualities of halls for musical performance. 8
- b) Why vents are provided in loudspeaker enclosures. 2
5. a) With a neat sketch, explain the working of a hard disk drive. 7
- b) List out the hardware associated with a R C. 3
6. a) Write the truth table of an 'OR' gate. 2
- b) Convert hexadecimal number '78' to binary sequence and then to decimal form. 4
- c) Explain the working of a flip flop. 4

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7. a) Explain the working of a speech spectrograph with a block diagram. 9  
b) List out the limitations of an induction loop group hearing system. 1  
OR
8. a) Which class of output power amplifier is most suited for hearing aids ?  
Give reasons. 4  
b) Explain the differences between a voltage amplifier and power amplifier. 2  
c) Explain the working of a class D output amplifier. Illustrate with a  
diagram. 4
9. a) With a neat sketch, explain how digital to analog conversion is achieved.  
Draw a neat sketch to illustrate this. 7  
b) Explain the role of A to D and D to A converters in digital hearing aids. 3  
OR
10. a) Distinguish between analog and digital signals. 3  
b) Discuss the applications of digital signal processing in speech and hearing  
field. 7

# OC 060 (SP&HG)

II B.Sc. (III Semester) Examination, Oct./Nov. 2004 .(Scheme :ISS)

## Speech and Hearing Statistics and Research Methods

Time: 2 Hours Max. Marks: 50

*Instruction:* Answer all questions. -

- I. 1. Define measurement. Explain the various scales of measurement with suitable examples. 10
- OR
2. a) What are the functions of statistics in the field of speech and hearing ? 8
2. b) Give two examples of ratio scales of measurement. 2
- II. 3. a) What is a table ? Draft a blank table showing distribution of cases according to: 7
- Sex : Male & Female
- Diagnosis : Mental Retardation, Autism & Cerebral palsy
- SES : High, Middle & Low
- Years : 2000, 2001 & 2002
- . 3 . b) What is an ogive ? 3
- OR.
4. Distinguish between primary and secondary data. Explain the different methods of collecting primary data. 10
- III. 5. a) Calculate the median of : 3
- 23, 28, 14, 12, 27, 33
5. b) Mention the various measures of dispersion. 4
- Find the value of quartile deviation for the following data:
- |                   |           |           |           |           |           |           |           |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Roll Nos.:</b> | <b>12</b> | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  |           |
| <b>Marks:</b>     | <b>20</b> | <b>28</b> | <b>40</b> | <b>12</b> | <b>30</b> | <b>15</b> | <b>50</b> |
5. c) Mention the major merits and limitations of arithmetic mean. 3
- OR
6. a) Elucidate the general properties of normal distribution curve. 6
6. b) State and explain the addition theorem of probability with a suitable example. 4

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IV. 7. a) Calculate the Spearman Rank Correlation for the following ranks: 5

**A: 2 1 4 3 5 7 6**

**B: 1 3. 2 4 5. 6 7**

7. b) What is sampling error ? How is it measured ? 3

7. c) Correlation is different from causation. Explain. 2

**OR**

8. Calculate Karl Pearsons Coefficient of Correlation between the values of X and Y. 10

X	10	12	18	16	15	19	18	17
Y	30	35	45	44	42	48	47	43

... V. 9. a) Delineate the guidelines to be followed in effective report writing. 5

9. b) Highlight the characteristics and limitations of experimental research. 5

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

10. b) What is a bibliography ?

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