MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY/JUNE 2006

SUBJECT: INTRODUCTION TO SPEECH AND LANGUAGE PATHOLOGY (B.1.1.1)

Wednesday, May 31, 2006

Time: 3 Hrs.   Max. Marks: 80

✍ **Question no. 1 is compulsory. Answer any FOUR from the rest.**

1A. **Fill in the blanks**:
   i)   Two important parameters of perturbation are ___ and ____.
   ii)   Severe comprehension impairment with jargon utterances is observed when there is damage to ____.
   iii)   Second formant is higher in ___ vowel as compared to ___ vowel.
   iv)   Airflow method is one of the treatment techniques for persons with ___.
   v)   Development of language begins with ____ development.
   vi)   The amplification becomes the preliminary step in the treatment of ___ children.
   vii)   Normal fundamental frequency for females is ____ Hz.
   viii) Slurred speech is the primary clinical feature of ___ patients.

                                                                                                      (10 marks)

1B. Write in not more than 2-3 sentences.
   i)   Bilabial sounds   ii)   Audible inspiration   iii)   Puberphonia

                                                                                              (2×3 = 6 marks)

2A. Define articulation. Explain the natural phonological processes.
2B. Differentiate between the production of /p/ and /m/.

                                                                                              (8+8 = 16 marks)

3A. What are the different basis of speech? Explain.
3B. Speech is an overlaid function. Discuss.

                                                                                              (6+10 = 16 marks)

4A. How do you classify voice disorders? Illustrate with examples.
4B. Describe the voice characteristics of any two disorders of voice.

                                                                                              (6+10 = 16 marks)

5A. Define stuttering.
5B. What are the various dysfluencies observed in stuttering?
5C. Write a note on cluttering.

                                                                                              (2+10+4 = 16 marks)

6. Write short notes:
6A. Speech therapy for children.
6B. Phonological development.
6C. Trigeminal nerve.
6D. Normal speech.

                                                                                              (4×4 = 16 marks)

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MANIPAL ACADEMY OF HIGHER EDUCATION

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FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY/JUNE 2006
SUBJECT: INTRODUCTION TO AUDIOLOGY (B.1.2.1)
Thursday, June 01, 2006

Time: 3 Hrs. Max. Marks: 80

✍ **Answer FIVE questions in all. Question no. 1 is compulsory.**

1A. In not more than two sentences write on the **contribution** of:

    i)   Carhart   ii)   Kemp   iii)   Bekesy   iv)   Naunton

    v)   Weber   vi)   Helmholtz   vii)   Tonnodorf   viii)   Bing

    (1×8 = 8 marks)

1B. State true or false and justify.

    i)   Conductive hearing loss can not exceed 60 dBHL.

    ii)   IHC's are responsible for active hearing.

    iii)   Hearing threshold must be measured only in dBHL.

    iv)   Inter aural attenuation for head phones are higher than insert receivers.

    (2×4 = 8 marks)

2A. Name the different types of hearing impairment that you have observed in the clinic. How would you audiologically differentiate them? Use appropriate diagrams.

2B. In a tabular form, list the major causes of sensory neural hearing loss.

    (8+8 = 16 marks)

3A. Explain any two tuning fork tests.

3B. What are the advantages of pure tone audiometry over tuning fork tests?

3C. Draw a neat block diagram of a pure tone audiometer and label the parts. Briefly mention their functions.

    (6+2+8 = 16 marks)

4A. Define masking. Mention the relevance of understanding the terms *cross over, cross hearing, inter aural attenuation and over masking* for masking.

4B. Describe the maskers employed in clinical audiometry.

    (10+6 = 16 marks)

5A. Why is calibration of your audiometer an important prerequisite?

5B. What are the different types of calibration? How are they different?

5C. With a suitable block diagram, explain the electro acoustic calibration of intensity by A.C.

    (2+4+10 = 16 marks)

6A. Draw a neat diagram of the middle ear cavity and label the land marks.

6B. Explain the Active process of cochlear transduction.

    (8+8 = 16 marks)

7. Write short notes on any **FOUR**:

7A. Efferent auditory pathway.

7B. Travelling wave theory.

7C. Earphones.

7D. MAP.

7E. Osseo tympanic bone conduction.

    (4×4 = 16 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY/JUNE 2006

SUBJECT: BASIC HUMAN ANATOMY AND PHYSIOLOGY

Friday, June 02, 2006

Time: 3 Hrs.   Max. Marks: 80

✍ **ANSWER SECTIONS – A AND B IN TWO SEPARATE ANSWER BOOKS.**

✍ **Draw diagrams and flow charts wherever appropriate.**

SECTION – A: ANATOMY: 40 MARKS

1.   Describe the soft palate under:

1A. Musculature.

1B. Sensory and motor nerve supply.

(10 marks)

2.   Write briefly on:

2A. Development of tongue.

2B. CSF Formation and circulation.

(5×2 = 10 marks)

3.   Write short notes on:

3A. Cartilaginous joint.

3B. Posterior crico-arytenoid muscle.

3C. Tympanic membrane.

3D. Turner's syndrome.

3E. Oesophagus.

(4×5 = 20 marks)

SECTION – B: PHYSIOLOGY: 40 MARKS

4.   Write briefly on each of the following:

4A. Draw a labelled diagram of the organ of corti and explain how it is stimulated.

4B. List four functions of hypothalamus. Explain any one of them.

4C. Name the muscles involved in respiration. Explain their role in mechanics of respiration.

4D. In a tabular column give two differences between I and II heart sounds. Name the valves of the heart.

4E. Classify nerve fibers. List two properties of nerve fibers.

(4×5 = 20 marks)

5. Write short answers to any **FIVE** of the following:

(3×5 = 15 marks)

5A. Enumerate two functions of middle ear and explain any one of them.

5B. Define: i) synapse   ii) reflex action   iii) paralysis

5C. Define hypoxia and cyanosis. Give an example where each occurs.

5D. Mention the agglutinogens and agglutinins present in each of the groups of the ABO and Rh system of blood grouping.

5E. List two actions each of: i)   Testosterone   ii)   Thyroxine   iii) Adrenaline

5F. Define the following terms and give the normal values:

    i)   cardiac output   ii)   stroke volume iii)   arterial blood pressure

6. State whether the following statements are **TRUE** or **FALSE**.

6A. The hormone that brings about ovulation is LH.

6B. Normal heart rate is 50/min.

6C. Normal WBC count is 5 millions per mm^3 in adults.

6D. Vestibular apparatus is involved in equilibrium.

6E. Adrenaline is secreted by the adrenal cortex.

(1×5 = 5 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY/JUNE 2006

SUBJECT: BASIC ACOUSTICS AND ELECTRONICS (B.1.3.2)

Saturday, June 03, 2006

Time: 3 Hrs.   Max. Marks: 80

✍ ANSWER SECTIONS A & B IN TWO SEPARATE ANSWER BOOKS.
✍ Answer ALL questions.
✍ Draw diagrams and flow charts wherever appropriate.

SECTION – A: BASIC ACOUSTICS : 40 MARKS

1A. Speed of sound is governed by the properties of the medium and the frequency of vibration is governed by the properties of the _____.

1B. Particle acceleration _____ particle displacement by _____.

1C. Antilog $_2$3 = _____.

1D. Decibel is _____ times the logarithms of a power ratio.

1E. The 9th harmonic is also called _____ overtone.

1F. Loudness of sound depends on _____ of vibratory motion.

1G. A pressure node, a point of zero pressure corresponds to a displacement _____ and is located at the _____ end of the tube.

1H. For a given tension the frequency of a string varies _____ as the length.

1I. An increase in the sound pressure by a factor of 9:1 corresponds to an increase in sound intensity by a factor _____.

1J. If a complex wave is to be periodic, the sinusoidal components must be _____ of the fundamental frequency.

(1×10 = 10 marks)

2. Answer any TWO of the following:

2A. Discuss the vibratory motion of a tuning fork, explaining in detail the role of applied, inertial and elastic restoring forces.

2B. Explain the concept of phase of vibration executing simple harmonic motion. What do you mean by starting phase and instantaneous phase/phase angle?

2C. Define a saw tooth wave. Explain its waveform, amplitude spectrum and phase spectrum.

(5×2 = 10 marks)

3. Answer any FIVE of the following:

3A. i)   What are the properties of the transmitting medium?
     ii) Define longitudinal wave motion.
     iii) Explain the effect of friction on vibratory motion.

3B. Show that simple harmonic motion is a projection of uniform circular motion.

3C. Explain the laws of exponents with an example each.

3D. i) 26 dB corresponds to what pressure ratio? Given antilog$_{10}$0.3 = 2.

ii) An intensity level of 65dB (re: 10^{-12} watt/m^2) corresponds to what intensity? Given antilog$_{10}$6.5 = 3.16 x 10^6.

3E. Write a note on line spectra and continuous spectra with examples.

3F. What is damping? Explain graphically how amplitude varies in low damped and highly damped systems.

3G. Explain sound wave refraction. Discuss the differential effects of a sound wave being propagated against the wind and with the wind (assume propagation of spherical wavefronts).

(4×5 = 20 marks)

SECTION – B : BASIC ELECTRONICS: 40 MARKS

4. Fill in the blanks:

4A. The process of adding an impurity to an intrinsic semiconductor is called _____.

4B. The most widely used semiconductor mater in electronic devices is _____.

4C. In a voltage regulator circuit, zener diode is _____ biased.

4D. The depletion region is created by _____, _____ and _____.

4E. When the gain of a filter is minimum at its center frequency, it is _____ filter.

4F. A carbon resistor having colour code red, red, red bands has the resistance of _____ ohms.

4G. In the active region of a common emitter amplifier, the base-emitter junction is _____ biased.

4H. The audio signal is input to a coil in the loud speaker known as _____.

4I. Tank circuit is nothing but _____.

4J. If bismuth is added to an intrinsic silicon, the resulting semiconductor is _____ type.

(1×10 = 10 marks)

5. Answer any **FIVE** of the following:

5A. Give the differences between n-type and p-type semiconductor.

5B. What is zener breakdown? Explain the working of a zener voltage regulator.

5C. Draw and explain the block diagram of a microprocessor system.

5D. Explain different types of magnetic materials.

5E. Explain the need for a filter circuit in a rectifier. Describe the working of a capacitor filter for a full wave rectifier.

5F. With a neat circuit diagram explain two stage RC coupled amplifier.

5G. With a neat diagram explain the working of dynamic speaker.

(6×5 = 30 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION
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FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY/JUNE 2006
SUBJECT: INTRODUCTION TO LINGUISTICS (B.1.3.3)
Monday, June 05, 2006

Time: 3 Hrs.   Max. Marks: 80

1. 'Language never ceases to change; it is always in a state of flux'. How far is this statement true?

OR

Discuss the various properties of a language.

(10 marks)

2. Give differences between animal communication and human language.

OR

'English spelling is the world's most awesome mess'. Explain and illustrate.

(10 marks)

3. What is phonetics? What are the main branches of it? Explain egressive and ingressive sound with examples.

OR

How are vowel sounds produced? Draw a diagram to show the place from where these sounds come.

(10 marks)

4. What is meant by distinctive feature? How is the knowledge of this is useful in speech therapy?

OR

Diphthongs, clusters, syllables – what do these mean? Illustrate with examples.

(10 marks)

5. Write short notes on any **SIX**:
5A. Formative grammar
5B. Cant
5C. American English
5D. I P A notation
5E. Diacritics
5F. Syllabic consonants
5G. Transitive verbs
5H. Vocal cords
5I. Hyponymy
5J. Back vowels

(3×6 = 18 marks)

6. Give short answers and distinguish the pair:
6A. Linguistics and Psycholinguistics
6B. Deep Structure and Surface Structure
6C. Segmentals and Suprasegmentals
6D. Theoretical and applied linguistics

(1×4 = 4 marks)

7. Write whether statements below are true or false:
7A. Tip of the tongue is useful in producing bilabial nasal sound.
7B. A bilingual person can use more than two languages.
7C. Hyponymy is the opposite of antonymy.
7D. In English /v/ and /w/ are voiced.
7E. The maximum cluster of consonants [C] in initial position is two.
7F. /I/ in English is a voiced alveolar lateral sound.
7G. In the word treatment there are three syllables.

(1×7 = 7 marks)

8. Fill in with suitable words:
8A. The English word meaningless is an example for _____ morpheme.
8B. By means of minimal pairs British and American English distinguish _____.
8C. If [p] exists in one language [b] will have to exist in that language. Number of Diphthongs glide towards /i/ is _____.
8D. A person with a cleft lip will have difficulty in producing _____.
8E. Number of vowels used in English is _____.

(1×5 = 5 marks)

9. Transcribe the following phonemically using BBC pronunciation:
9A. fight
9B. clean
9C. date
9D. child
9E. young
9F. fun
9G. knee
9H. go
9I. shout
9J. sin
9K. food
9L. bell

(½×12 = 6 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY/JUNE 2006

SUBJECT: PSYCHOLOGY RELATED TO SPEECH AND HEARING (B.1.3.4)
Tuesday, June 06, 2006

Time: 3 Hours   Max. Marks: 80

✍ **Answer any EIGHT of the following. All questions carry equal marks.**

1.   Examine the nature of physical development across different stages of life.

2.   Define clinical psychology. Explain the scope of clinical psychology.

3.   Describe the nature of emotional development in childhood and adolescence.

4.   Define conditioning. Explain the principal differences between classical and operant conditioning.

5.   What is mental health? Differentiate between the western and Indian concept of mental health and illness.

6.   Discuss any three methods used in psychology highlighting their relative merits and demerits.

7.   Bring out the stages of language development giving special emphasis on syntactic development.

8.   Explain the following:
8A. Attachment.
8B. Emotional development in early childhood.

9.   Outline the current classification of psychiatric disorders according to ICD-10.

10.   Write short notes on any **TWO** of the following:
10A. ICD-10.
10B. Multi axial classification.
10C. Clinical rating.

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