Reg. No.										

MANIPAL UNIVERSITY

FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – AUGUST 2010

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

Monday, August 23, 2010

Time: 10.00-13.00 Hrs. Max. Marks: 80

Question No. 1 is compulsory. Answer any FOUR from the rest.

1A. Fill in the blanks:

i) Language is a system of _____ symbols.
ii) Harmonics are _____ of fundamental frequency.
iii) Manner of articulation of /ch/ is _____.
iv) An example of paired cartilage of larynx is _____.
v) Vital capacity of an adult male is around _____.
vi) Semantics refers to _____ of language.
vii) Fundamental frequency of children's voice is _____ compared to that of adults.
viii) Length of the vocal tract is _____ in adults.
ix) Thalamus is a responsible for _____
x) F2 formant frequency is related to _____ of tongue.

1B. Write in not more than two sentences each

i) Diaphragm
ii) VIIth cranial nerve
iii) Provisional diagnosis

(10+(2×3) = 16 marks)

2A. Define respiration.
2B. Describe in brief the respiration for speech and life.
2C. Write a note on lung volumes and capacities.

(2+6+8 = 16 marks)

3A. Describe the acoustic characteristics of normal voice.
3B. Write a note on speech chain

(8+8 = 16 marks)

4A. Define mental retardation.
4B. Provide the characteristics of human communication.
4C. Differentiate speeches from language.

(2+6+8 = 16 marks)

5A. What are the different bases of speech?
5B. Briefly discuss the cognitive basis of speech.

(6+10 = 16 marks)

6. Write short notes on:

6A. OSME
6B. Components of speech
6C. Play therapy
6D. Prognosis

(4×4 = 16 marks)

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MANIPAL UNIVERSITY

FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – AUGUST 2010

SUBJECT: BASIC ACOUSTICS AND ELECTRONICS (B.1.3.2)

Tuesday, August 24, 2010

Time: 10.00-13.00 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

1. Fill in the blanks:

1A. The maximum pressure amplification achieved by the outer and middle ear is about _____.

1B. Natural frequency of vibration of a loaded spring varies directly as the square root of the spring constant and inversely as the square root of _____.

1C. The frequency of drum's membrane is directly related to the _____ of the membrane and inversely related to its radius, density and _____.

1D. The rate at which sound energy is transferred through the medium is called _____.

1E. Saw tooth wave consists of frequency components that are _____ multiples of fundamental frequency.

1F. Human auditory system is an example for _____ tuned system.

1G. Frequency distortion is _____ whereas amplitude distortion is _____.

1H. The average length of the vocal tract for an adult male is _____.

1I. Refraction can be defined as a change in direction of sound wave propagation due to a change in _____ of propagation.

1J. As the temperature is increased the velocity of sound _____.

(1×10 = 10 marks)

2. Answer any TWO of the following:

2A. State and explain acoustic characteristics of speech sound.

2B. Define the following. Maximum amplitude, root-mean-square amplitude (rms), full wave rectified average amplitude, mean square amplitude. Taking maximum amplitude as 4 units, calculate the rms amplitude and full wave rectified average amplitude.

2C. 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).

(5×2 = 10 marks)

3. Answer any FIVE of the following:

3A. Explain how the total SPL that results by combining sources of (i) equal intensity (ii) unequal intensities, are calculated.

3B. Explain the effects of variations in the starting phase on the shape of complex wave that results from summation of sine waves.

3C. Explain the concept of resonance giving two examples. Write the construction and working of Helmholtz resonator.

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

3E. How sound can be produced? What are the sources of sound? What are the properties of sound?

3F. Write a note on anechoic sound isolated rooms.

3G. A certain sound level is increased by an additional 30 dB. Show that (i) its intensity increases by a factor of 1000 and (ii) its pressure amplitude increases by a factor of 32.

(4×5 = 20 marks)

SECTION – B : BASIC ELECTRONICS: 40 MARKS

4. Fill in the blanks:

4A. Inductor is _____ circuit element.

4B. The main advantage of _____ oscillator is High Quality factor and stability.

4C. The piezoelectric effect is most pronounced in _____.

4D. The directional pattern of Bidirectional microphone is described as _____.

4E. The purpose of the _____ is to send high frequencies to the tweeter and low frequencies to the woofer.

4F. A pre-emphasis circuit provides extra noise immunity by amplifying the _____.

4G. _____ signal is continuous and has infinite resolution.

4H. In AM system the modulation index is a number lying between _____ and _____.

4I. The _____ displays a graph of voltage amplitudes with respect to time.

4J. In tape recorder, commonly used noise reduction method is _____.

(1×10 = 10 marks)

5. Answer any FIVE of the following:

5A. With a neat diagram explain the working of ribbon microphone. Also explain directionality characteristics of a microphone.

5B. With a neat block diagram explain the working principle of super heterodyne receiver.

5C. Explain the working of an audiometer with the help of a block diagram.

5D. With a neat diagram explain how does a tape recorder system works.

5E. Discuss the various levels of integration in ICs. Also list the advantages of ICs over discrete components.

5F. Classify the filters and explain their applications.

5G. Write a note on:

i) FM recording

ii) Ear phone/Head phone

(6×5 = 30 marks)

Reg. No.										

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FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – AUGUST 2010

SUBJECT: BASIC HUMAN ANATOMY AND PHYSIOLOGY

Wednesday, August 25, 2010

Time: 10.00-13.00 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 origin, insertion, actions and nerve supply of intrinsic muscles of the larynx. (10 marks)

2. Write briefly on:

2A. Development of palate and its anomalies

2B. Medial wall of middle ear

(5×2 = 10 marks)

3. Write short notes on:

3A. Palatine tonsil

3B. Nasal septum

3C. Brain stem

3D. Sinus of the larynx

3E. Dorsum of tongue

(4×5 = 20 marks)

SECTION – B: PHYSIOLOGY: 40 MARKS

4. Essay questions:

4A. Explain the stretch reflex with the help of a neat labeled diagram.

4B. Draw a neat labeled diagram of an electrocardiogram (ECG). Mention the causes for different waves in an ECG. List the uses of ECG.

4C. Explain the mechanism of inspiration and expiration.

4D. Describe the various methods by which substances are transported across cell membrane.

(5×4 = 20 marks)

5. Write short answers for the following:

5A. Mention any two differences between skeletal and smooth muscles.

5B. Define blood pressure. Give the normal value of blood pressure in adults.

5C. Mention any TWO clinical features of acromegaly.

5D. Classify anticoagulants and name any TWO anticoagulants.

5E. Mention TWO functions of saliva.

5F. What is hypermetropia? How is it corrected?

5G. List TWO functions of kidneys.

5H. Define vital capacity and mention its normal value in adults.

5I. Mention two functions of testosterone.

5J. Mention any two differences between upper and lower motor neuron lesions.

(2×10 = 20 marks)

Reg. No.										

MANIPAL UNIVERSITY

FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – AUGUST 2010

SUBJECT: INTRODUCTION TO AUDIOLOGY (B.1.2.1)

Thursday, August 26, 2010

Time: 10.00-13.00 Hrs. Max. Marks: 80

✍ **Answer any FIVE questions. Question no 6 is compulsory.**

1A. Explain on the physiology of external ear.

1B. Write a note on cochlear potentials.

(8+8 = 16 marks)

2. Write an essay on theories of hearing.

(16 marks)

3. Describe the factors affecting AC thresholds.

(16 marks)

4. What are the factors that you will consider while constructing an Audiometric room in your clinic?

(16 marks)

5A. Write on MAP, MAF and its application.

5B. List any four causes of SNHL.

(8+8 = 16 marks)

6. Write short notes on any FOUR of the following:

6A. CSOM

6B. Audiometric version of Bing test

6C. Phones & Sones

6D. Audiometric zero

6E. Naunton's dilemma

(4×4 = 16 marks)

Reg. No.										

MANIPAL UNIVERSITY

FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – AUGUST 2010

SUBJECT: INTRODUCTION TO LINGUISTICS (B.1.3.3)

Friday, August 27, 2010

Time: 10.00-13.00 Hrs. Max. Marks: 80

1. What are the various branches of linguistics? Elaborate on five of them.

OR

What are the factors helping to understand a language?

(10 marks)

2. How are new words formed? What are the four kinds of words as explained by Loreto Todd?

(10 marks)

3. What is meant by supra segmental features (prosodic features) of English?

OR

Describe briefly the place and manner of articulation of English consonants.

(10 marks)

4. What is phonology? Explain briefly.

(10 marks)

5. Write short notes on any FIVE of the following:

5A. Monophthongs
5B. Assimilation
5C. Deep structure and surface structure
5D. Pragmatics
5E. Normative and formative grammar
5F. Superordinate
5G. Triphthongs.

(3×5 = 15 marks)

6. Identify the true and false statements in the following:

6A. I don't know how to convince you. The group of words underlined is a phrase.
6B. When shall we 'get together'? The phoneme /t/ in 'get' is not spoken. It is assimilation.
6C. 'cut' in English is an open syllable.
6D. The name of the English letter k is a long vowel.
6E. 'They are good' the auxiliary are is pronounced in its weak form / ə /
6F. Chomsky propogated case grammar.
6G. The English word 'fight and right' constitute a minimal pair.
6H. In the word minimum there are four nasal sounds and three vowel phonemes. All the phonemes are voiced.
6I. Plosives are also called stops.
6J. In the English word central, the second phoneme is a central vowel.

(½×10 = 5 marks)

7. Fill in the blanks using terms relating to linguistics:

7A. All English phonemes are produced with _____ air stream mechanism.
7B. When we articulate the nasal phoneme _____, both the lips come together.
7C. 'The mighty tinker makes pots and pans'. When spoken 'and' is pronounced _____.
7D. Extreme form of informality is expressed in _____.
7E. _____ formation decides primary and cardinal vowels.
7F. While breathing, _____ are wide open.
7G. _____ and grammar are more or less similar in texts.
7H. 'The boy, whose father earned a lot of money, is studying in Germany' is a _____ sentence.
7I. They walked down the street in search of their pup. 'down' is a _____ in word class.
7J. 'If there is no jam, eat your bread with butter.' This is said with a _____ intonation.

(½×10 = 5 marks)

8. What do the following mean? Explain them briefly:

8A. Idiom and idiolect
8B. Fricatives and affricates
8C. Distinctive features of /p/ and /d/

(2×3 = 6 marks)

9. Match the following:

i)	voiceless velar plosive	a)	prefix
ii)	mute	b)	acronym
iii)	touch	c)	weak form of is
iv)	good day	d)	k
v)	triangle	e)	central vowel
vi)	it's	f)	affricate
vii)	soda	g)	elision
viii)	trouble	h)	diphthong
ix)	rejoin	i)	semivowel
x)	UNO	j)	consonant cluster

(½×10 = 5 marks)

10. Transcribe the following words using phonemic symbols as used by BBC English speakers:

10A. believe
10B. harden
10C. lazy
10D. dare
10E. scene
10F. frighten
10G. employ
10H. thorn

(½×8 = 4 marks)

Reg. No.										

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FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – AUGUST 2010

SUBJECT: PSYCHOLOGY RELATED TO SPEECH AND HEARING (B.1.3.4)

Saturday, August 28, 2010

Time: 10.00-13.00 Hours Max. Marks: 80

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

1. What is normality? Discuss any two perspectives of normality.

2. Discuss the theories of moral development.

3. Define clinical psychology and discuss its scope in general and as a specialty in health sciences.

4. Describe the clinical features of any two psychotic disorders.

5. Briefly examine the techniques of exposure and desensitization.

6. What is the scope of psychological assessment? Outline the various tests of personality.

7. Discuss the oriental and Indian concepts of mental illness.

8. Delineate the various phases of physical development throughout the lifespan.

9. Define conditioning. Outline the differences between classical and operant conditioning.

10. Write short notes on any TWO of the following:

10A. Multi-axial classification

10B. Disability acts

10C. Cognitive model of mental disorder.