

MANIPAL UNIVERSITY

FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY 2009

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

Monday, May 18, 2009

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) Manner of articulation of /s/ is _____.
- ii) An example of unpaired cartilage of larynx is _____.
- iii) The primary cause for cerebral palsy is _____.
- iv) Tongue is innervated by _____ cranial nerve.
- v) LMN lesion leads to _____ type of paralysis.
- vi) _____ is a technique for articulation therapy.
- vii) The other name for soft palate is _____.
- viii) Receptive aphasia is also known as _____ aphasia.
- ix) _____ test provides information on cognitive age along with language age.
- x) Harmonics are multiples of _____.

1B. Write in not more than two to three sentences

- i) Puberphonia
- ii) Lesson plan
- iii) Case history

(10+(2×3) = 16 marks)

2A. With the help of a neat diagram explain the intrinsic muscles of larynx.

2B. Write a note on pitch raising mechanism.

(10+6 = 16 marks)

3A. Define Phonology.

3B. Explain the phonological development in children.

(4+12 = 16 marks)

4A. Define aphasia.

4B. Write a note on the classification of aphasia.

4C. What is a diagnostic report?

(2+8+6 = 16 marks)

5A. Briefly discuss the source filter theory of speech production.

5B. Discuss the acoustic correlates of voice.

(8+8 = 16 marks)

6. Write short notes on:

6A. Causes and characteristics of voice disorders.

6B. Social basis of speech.

6C. Speech language and communication.

6D. Autism.

(4×4 = 16 marks)



MANIPAL UNIVERSITY

FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY 2009

SUBJECT: BASIC ACOUSTICS AND ELECTRONICS (B.1.3.2)

Tuesday, May 19, 2009

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. _____ force is responsible for an oscillating body to approach equilibrium.
 1B. The total energy of the vibrating particle is _____ all along its path.
 1C. Particle velocity _____ particle displacement by _____.
 1D. The sound level corresponds to the threshold of human hearing is _____.
 1E. White noise has a pressure spectrum level slope _____ dB/Octave.
 1F. In case of a triangular wave for each octave increase in the frequency, the relative amplitude _____ 12dB.
 1G. At the natural frequency of the system impedance is _____ and admittance is _____.
 1H. Systems that produce frequency distortion are _____.
 1I. A longitudinal pressure wave is reflected from an open end of the tube with a phase change of _____.
 1J. A close organ pipe (one end open, other end closed) and an open organ pipe (both ends closed) have their first overtone of identical frequency. Their lengths are in the ratio _____.

(1×10 = 10 marks)

2. Answer any TWO of the following:

- 2A. What are standing waves? Give two differences between standing waves and progressive waves. Explain how the standing waves are formed in a string that is anchored at both the ends.
 2B. Define a saw tooth wave. Explain its waveform, amplitude spectrum and phase spectrum.
 2C. Explain the term acoustic impedance. Draw phasor diagram showing the impedance vector resulting from compliant reactance, mass reactance and resistance. What is the magnitude of the impedance vector?

(5×2 = 10 marks)

3. Answer any FIVE of the following:

- 3A. The siren of the police car emits a pure tone at a frequency of 1125 Hz. Find the frequency that you would perceive in your car under the following circumstances: (i) your car at rest, police car moving toward you at 29 m/s (ii) police car at rest, your car moving toward it at 29 m/s. Given: Speed of sound in air is 343 m/s.
 3B. i) Define simple harmonic motion.
 ii) Define longitudinal and transverse waves

- iii) What are the properties of the transmitting medium?
 - iv) Write the expression for the period of oscillating pendulum with notations/symbols explained.
- 3C. With a neat sketch explain the human vocalization mechanism. How resonance takes part in human vocalization?
- 3D. Explain the concept of phase of vibration executing simple harmonic motion. What do you mean by starting phase and instantaneous phase/phase angle?
- 3E. Explain sound intensity level and sound pressure level. Obtain the expression for sound pressure level.
- 3F. State Fourier theorem. Distinguish between line spectra and continuous spectra. Give examples.
- 3G. What do you mean by distortion of a signal? Explain transient distortion.

(4×5 = 20 marks)

SECTION – B : BASIC ELECTRONICS: 40 MARKS

4. Fill in the blanks:

- 4A. _____ is a device that stores energy by creating a magnetic field.
- 4B. A filter which reduces 50Hz power supply hum is called _____.
- 4C. Quartz is an example for _____.
- 4D. The output level of the carbon microphone is _____.
- 4E. The _____ microphone is bidirectional.
- 4F. The purpose of the crossover network is to send _____ frequencies to the tweeter and _____ frequencies to the woofer.
- 4G. The basic requirement of a _____ is to impart a constant speed to the tape.
- 4H. Sensitivity describes the ability of the tuner to pick up _____.
- 4I. Data are transferred on the _____ bus between the CPU and Memory or the CPU and I/O.
- 4J. Linear integrated circuits are also referred to as _____ integrated circuits.

(1×10 = 10 marks)

5. Answer any FIVE of the following:

- 5A. With a neat diagram explain the working of Electret microphone.
- 5B. i) What is the main advantage of digital recording over analog recording?
ii) Explain Dolby B noise reduction system.
- 5C. With the help of a neat block diagram explain AM tuner.
- 5D. What is memory hierarchy? Explain the purpose of hierarchy in detail.
- 5E. i) Draw the neat block diagram of audiometer and explain.
ii) What is audiogram? Explain.
- 5F. Explain the working principle of Cathode Ray Tube (CRT).
- 5G. Write a note on: i) Crystal Oscillator ii) Regulated Power Supply

(6×5 = 30 marks)



MANIPAL UNIVERSITY**FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY 2009****SUBJECT: BASIC HUMAN ANATOMY AND PHYSIOLOGY**

Wednesday, May 20, 2009

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 salient features in the lateral walls of the different parts of the pharynx. (10 marks)
2. Write briefly on:
 - 2A. Functional lobes of the cerebellum.
 - 2B. Anterior and posterior walls of the middle ear. (5×2 = 10 marks)
3. Write short notes on:
 - 3A. Epiglottis.
 - 3B. Cleft palate.
 - 3C. Maxillary air sinus.
 - 3D. Coronary sinus.
 - 3E. Sex chromatin. (4×5 = 20 marks)

SECTION – B: PHYSIOLOGY: 40 MARKS

4. **Essay questions:**
 - 4A. Name the different types of plasma proteins and mention four functions.
 - 4B. Name the hormones secreted by posterior pituitary. Explain the action of these hormones.
 - 4C. Define cardiac cycle. Give its normal duration. Explain the sequence of events during ventricular systole.
 - 4D. Draw oxygen dissociation curve. Give the significance of flat and steep portions of the graph. List two factors that shift the curve to the right. (5×4 = 20 marks)
5. **Write short answers for the following:**
 - 5A. Draw and label a nerve action potential.
 - 5B. Define erythropoiesis. Mention two factors that regulate erythropoiesis.
 - 5C. List four differences between first and second heart sounds.
 - 5D. Define pulmonary ventilation. Give its normal value.
 - 5E. Name the ascending tracts and mention the sensations carried by any one tract.
 - 5F. List the functions of middle ear.
 - 5G. Describe the regulation of gastric acid secretion.
 - 5H. List four functions of kidney.
 - 5I. Explain any two indicators of ovulation.
 - 5J. List the hormones secreted by the adrenal cortex. (2×10 = 20 marks)



MANIPAL UNIVERSITY
FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY 2009
SUBJECT: INTRODUCTION TO AUDIOLOGY (B.1.2.1)

Thursday, May 21, 2009

Time: 10.00-13.00 Hrs.

Max. Marks: 80

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

1. Describe the anatomy of middle ear cleft with appropriate diagrams. (16 marks)
2. Write an essay on the theories of bone conduction. (16 marks)
- 3A. Write a note on frequency and intensity and its psychological correlates.
3B. Write a note on Audiometric version of Weber test and its applications. (8+8 = 16 marks)
4. Write an essay on factors affecting AC and BC thresholds. (16 marks)
5. Illustrate with example:
 - 5A. AC and BC masking criteria.
 - 5B. Calculation of noise levels for masking.
 - 5C. Platue method of masking.
 - 5D. Shadowgram. (4×4 = 16 marks)
6. Write short notes on any **FOUR** of the following:
 - 6A. Daily listening check.
 - 6B. Speech audiometry.
 - 6C. Consequences of CSOM.
 - 6D. MAP & MAF.
 - 6E. Anatomy of central auditory pathway. (4×4 = 16 marks)



MANIPAL UNIVERSITY**FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY 2009****SUBJECT: INTRODUCTION TO LINGUISTICS (B.1.3.3)**

Friday, May 22, 2009

Time: 10.00-13.00 Hrs.

Max. Marks: 80

1. Answer any FOUR of these:

- 1A. What are the suprasegmental features of English speech? Explain with examples.
- 1B. Describe the principles of phonemic analysis.
- 1C. What is TG grammar? What are its demerits?
- 1D. What is syntax? In relation to it what do the following mean?
phrases, clauses, transitive verbs, intransitive verbs, simple, complex and compound sentences. Give suitable examples.
- 1E. What is phonetics? What are its various branches? What are the differences between phonetics and phonemics?
- 1F. Draw a neat diagram of a speech organs and their uses in articulating phones of English-vowels and consonants.

(10×4 = 40 marks)

2. Write short notes on any EIGHT of the following:

- 2A. child language
- 2B. free and bound morphemes
- 2C. trill and tap
- 2D. lax and tense sounds
- 2E. how to describe a consonant
- 2F. diacritics
- 2G. closed diphthongs
- 2H. pidgin
- 2I. acronym
- 2J. differences between /v/ and /w/

(2½×8 = 20 marks)

3. Say whether the statements in respect of linguistics are true or false:

- 3A. Rise and rice have similar pronunciation.
- 3B. The vowel in clean is said with the position of lips rounded.
- 3C. All the 24 consonants can begin a word in English.
- 3D. The nucleus in cut is /k/
- 3E. In calculation, the stress falls on the third syllable.
- 3F. There are two sheep in our field. The word underlined is a bound morpheme.
- 3G. Semantics deals with the grammar of English words.
- 3H. 'A large number of his friends attended Prem's birthday party' is a simple sentence.
- 3I. 'My bicycle is new' – the word underlined is a determiner.
- 3J. Case grammar is a type of grammar developed by Fillmore.

(½×10 = 5 marks)

4. Fill in the blanks with the right word:

- 4A. _____ does not end a word in English.
4B. _____ questions are often spoken with a falling tone.
4C. The word _____ is an example of inflectional morphology.
4D. When - ous is added as a suffix to the stem, the word becomes _____.
4E. Structuralism was advocated by _____.
4F. 'That boy', in rapid speech, is pronounced /p/ in the place of /t/. This change is called _____.
4G. Brunch is an example of _____.
4H. Track - in this r is a _____.
4I. In bushes the last two phonemes are _____.
4J. When a word has only one form it is called _____ word.

($\frac{1}{2} \times 10 = 5$ marks)

5. Match the following:

- | | |
|-------------------------------|-----------------------|
| 5A. CAT | i) zero morpheme |
| 5B. pass <u>e</u> d | ii) apex |
| 5C. foundati <u>o</u> n | iii) has |
| 5D. it's <u>s</u> gone | iv) sibilant |
| 5E. gam <u>e</u> | v) consonant cluster |
| 5F. pag <u>e</u> | vi) voiced velar stop |
| 5G. gi <u>r</u> l | vii) past morpheme |
| 5H. scre <u>a</u> m | viii) bilabial nasal |
| 5I. tip of the tongu <u>e</u> | ix) acronym |
| 5J. two <u>sh</u> ee <u>p</u> | x) bound morpheme |

($\frac{1}{2} \times 10 = 5$ marks)

6. Transcribe in IPA symbols:

- 6A. clock
6B. load
6C. plough
6D. money
6E. strange
6F. flash
6G. rude
6H. station
6I. year
6J. child

($\frac{1}{2} \times 10 = 5$ marks)



Reg. No.																			
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MANIPAL UNIVERSITY

FIRST YEAR B.A.S.L.P. DEGREE EXAMINATION – MAY 2009

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

Saturday, May 23, 2009

Time: 10.00-13.00 Hours

Max. Marks: 80

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

1. Discuss the social-emotional development through any two important stages of life.
2. Describe the clinical features of any two psychiatric disorders.
3. Define Intelligence and examine the various tests used to measure Intelligence.
4. Highlight the theory of moral development.
5. Discuss the stages of language acquisition and its relevance to the development of language disorders.
6. Elaborate on Token economy and contingency management.
7. Discuss two major systems of classification of mental disorders.
8. Explain the socio-cultural and learning models of mental disorders.
9. Discuss the concept of Normality and Abnormality.
10. Write short notes on any **TWO** of the following:
 - 10A. Time out technique.
 - 10B. Assessment of disability.
 - 10C. Survey method.

