

Speech Science / COMD 6305

Exam 3 Topics for Review

The exam will cover material presented in the textbook and in discussed in lecture. This list is intended to assist you in organizing your study material. Each chapter has two sections: the first outlines the major concepts we've covered thus far, and the second is a list of vocabulary taken from the text.

Chapter 8- The auditory system

Concepts

- A. Anatomy and Function of outer/ middle/ inner ear
 - Stapedial reflex
 - Cochlear
 - Organ of Corti
 - Fourier Analysis

- B. Speech perception
 - Consonant and Vowel perception
 - Steady state cues vs. Dynamic cues
 - Categorical perception
 - Identification vs. Discrimination

- C. Specific Language Impairment (SLI) and hearing

Chapter 8- The auditory system – clinical applications

Concepts

- A. Audiometric tests
 - Immitance audiometry
 - Tympanogram (types and meaning)
 - Otoacoustic emission test
 - Generation of otoacoustic emission
 - ABR testing

- B. Cochlear implants and their coding strategies

- C. Articulation Index (AI)

Terminology for chapter 8 and 9

Silent center vowels	Oval window	Perforation
Otitis media	Auditory nerve	Sensorineural hearing loss
Inner hair cell	Ossicular chain	Tone language
Outer hair cell	Eustachian tube	Tonotopic organization
Semicircular canals	Cerumen	

Chapter 10- The nervous system

Concepts

- A. Cells of nervous system
 - Neuron
 - Cell body
 - Dendrites
 - Axon
 - Terminal buttons

- B. Meninges
 - Dura matter
 - Arachnoid matter
 - Pia matter

- C. Ventricles of the brain

- D. CNS/PNS
 - Divisions of the CNS
 - Hemispheres
 - Lobes of the brain (including 5th lobe)
 - Cerebellum, Midbrain, Pons, Medulla
 - Corpus callosum

- E. Neural controls of speech
 - Broca's
 - Wernicke's
 - Angular gyrus
 - Arcuate fasciculus
 - Supramarginal gyrus

- F. Extraparamidal system
- G. Circle of Willis
- H. Upper and lower motor neuron pathways
- I. Cranial nerves

Chapter 11- The nervous system- clinical applications

Concepts

- A. Structural neuroimaging
 - CT
 - MRI
- B. Functional neuroimaging
 - SPET
 - PET
 - fMRI
 - EEG
 - MEG
- C. Radioactive tracers
- D. Invasive/noninvasive imaging
- E. Advantages/disadvantages of imaging techniques for major neurogenic disorders, including: Stroke, stuttering, PD, MS, and AD.

Terminology for chapter 10 and 11

Myelinate	Fibers –	Vascular structure
Extracellular space	commissural,	Limbic system
Transmit impulses	association,	Hippocampus
Depolarization/repolarization	projection	Pyramidal
Cerebrospinal fluid	Spinal reflex	Afferent and efferent neurons
Basal nuclei	Language zone (peri-sylvian)	
Lateral capsule	Grey and white matter	
Sucli/gyri		