Study Guide for Biopsyc Exam 2

# Vision

Sensitivity

Acuity

Can any species see in the dark?

Difference between placement of eyes for predators and prey

Parts of eye

Layers of retina

Fovea

Blind spot

Completion

Cones and rods

Photopic vision

Scotopic vision

Difference in convergence in cones and rods

Cone and rod distribution in the retina

Retina-geniculate-striate pathway

LGN layers and types of cells found in each

Parvocellular vs. magnocellular layers

Retinotopic organization

Receptive field

Basic organization of primary visual cortex

Color vision

Color constancy

How would you explain why people see the Blue/Black or White/Gold Dress differently?

(For the above, just know what we covered in class)

Cortical mechanisms of vision

Areas of visual cortex (primary, secondary, association)

Scotoma

Completion

Blindsight

Functional Areas

Dorsal and ventral streams, specific location, what they do, what damage results in

Visual Agnosia

Prosopagnosia

Akinetopsia

Principles of sensory system organization

Hierarchical organization, functional segregation, parallel processing

Sensorimotor System

Characteristics of sensorimotor system

Direction of information flow

Organization

Feedback

Learning

# Sensorimotor Association Cortex

Posterior Parietal Association Cortex

Input-

Output-

Function-

Damage-

Apraxia

Definition

Location of Damage

Contralateral Neglect

Definition and location of damage

Dorsolateral Prefrontal Association Cortex

Input-

Output-

Function-

# Secondary Motor Cortex

General input and output

Components

Supplementary Motor Area

Premotor Cortex

Cingulate Motor Areas

Function

Mirror Neurons

Primary Motor Cortex

Conventional View

Function-

Motor homunculus

Feedback-

Stereognosis-

Current View

Damage

# Cerebellum

Input

Feedback

Output

Function

Damage

# Basal Ganglia

Input

Output

Function

# Descending Motor Pathways

Dorsolateral and Function

Ventromedial and Function

Cortical areas of somatosensation

Effects of damage to primary somatosensory cortex

Astereognosia

Asomatognosia

Anosognosia

Phantom Limbs

\*Be able to trace the pathway of information (in the CNS) for looking at an object and then moving to interact with it (e.g. looking at a cup and picking it up). Be able to describe roughly what is happening at each level (the function of that area) and name each part of the pathway.