

Psychology Comprehensive Exam

Study Guide 2001-2002

Experimental

Science versus Pseudoscience

Scales of measurement

Descriptive Methods such as observation, recording data, reliability, problems

Central Tendency: mean, median, mode

Variability: range, mean deviation, variance, standard deviation

Normal Curve: z-scores

Correlation: research, measures, formula

Hypothesis Testing: Inferential statistics, sampling distributions

Type I, type II errors

Independent and Dependent t-test

ANOVA, Repeated Measures

Non-parametric tests

Case studies

History and Systems

Basic assumptions of science

Conceptual criteria for evaluating Theory

Science vs. Pseudoscience

Associationism (primary concern)

Wundt and Founding of Psychology

Introspectionism

Functionalism

Behavioralism vs. Mentalism

Pavlov and Classical Conditioning

Trial and Error learning

Gestalt Psychology

Organization of Elements into Wholes

Emergent Qualities

Insight

Watson and his view of mind

Criticisms of introspectionism

Methodological Behaviorism

Metaphysical or radical Behaviorism

Little Albert & Conditioned fear (Phobia)

Clinical / Applied Courses

Abnormal

Difficulty of defining Abnormality
Medical Model
DSM-IV Axes
Definition of Psychotherapy
Psychodynamic Psychotherapy
Cognitive Behavior Therapy
Behavior Genetics
Diathesis-Stress Theory
Psychopharmacology
Autism vs. Mental Retardation
Cultural-familial vs. Organic causes
Depression: Characteristics
Etiology for depression from various perspectives
Catecholamine Hypothesis
Treatments
Mania: Characteristics
Bi-polar disorder: Characteristics
Treatment of Choice
Dysthymia and Cyclothymia
Schizophrenia: Incidence and Characteristics
Types of Schizophrenia
Dopamine Hypothesis
Treatment of Choice/most common
Substance abuse
Anorexia Nervosa: Characteristics
Bulimia Nervosa: Characteristics
Etiology of Eating Disorders
Personality Disorder
Disassociative Disorders

Clinical / Tests & Measurements

Definition of Clinical Psychology
Scientist-practitioner model
Holy Trinity of Clinical Psychology
Psychological Assessment
MMPI-Rorschach-TAT
Objective vs. Projective tests
Psychoanalysis
Structural Model
Stages of Psychosexual Development
Free Association
Criticisms of Freud
Person-centered Therapy
Phenomenological Viewpoint

Behavior Therapy
General learning concepts
Behavioral treatment techniques
Criticisms

Social / Industrial-Organizational / Forensic / Human Sexuality

Definition of Social Psychology
Persuasion
Connection between Attitude and Behavior
Milgram Experiment
Zimbardo Prison study
Conformity
Norms
Attitude
Cognitive Dissonance Theory
Festinger and Carlsmith's \$1-\$20 study
In-Group/Out-Group Effects (Minimum Group Paradigm)
Theories of Aggression
Theories of Prejudice
General Reward Theory of Attraction
Proximity and Similarity Matching
Stereotypes
Weapon effect
Selection & Assessment
Sternberg's Triangular Theory of Love
Passionate Love
Companionate Love

Physiological / Learning Courses

Behavioral Neuroscience / Psychopharmacology / Perception

The importance of animal research
Structure and function of neurons and glial cells
Action potentials
Spatial and Temporal summation
Neurotransmitters
Drug affects on the brain
Brain areas involved in Addiction
Divisions of the CNS
Main structures of the Hindbrain, Midbrain and Forebrain
Specific functions of the Hypothalamus
The resting potential (what it is, how it is maintained, and why it is important)
The Synapse and synaptic transmission
Three muscle types
Central pattern generator
Cerebellum
Behavioral effects of the most common legal and illegal drugs
Physiological effects of the most common legal and illegal drugs
Withdrawal behaviors
Addiction
Disease model of addiction
psychophysics methods
anatomy of the eye and ear
Transduction process for each of the senses
The path that visual information follows as it travels from the rods/cones to the occipital cortex
Trichromatic and Opponent Process theories of Color Vision
Gestalt principles of organization
Monocular & binocular cues of depth perception
Constancies (shape, size, brightness)
Gate control theory of pain
Phantom-limb pain
Vestibular sense
Kinesthetic sense

Learning / Animal Behavior

Respondent (elicited behavior that you don't have to learn) and Operant (emitted behavior that will increase or decrease depending on the consequences) conditioning
Positive and Negative Reinforcement.
A-B-A-B reversal technique
Habituation
Conditioned Stimulus
Extinction and Spontaneous Recovery
Backward Conditioning
Overshadowing, Blocking and Sensory Pre-conditioning

Rescorla-Wagner model

Discriminative Stimuli (S^D) and Extinction Stimuli (also referred to $S\Delta$).

4 basic contingencies of Operant Conditioning (Positive Reinforcement, Negative Reinforcement, Positive Punishment and Negative Punishment)

Resistance to extinction

Instinctive drift

Autoshaping

Conditioned Taste Aversion

Post-Reinforcement-Pause

Primary Aversive Stimuli and Conditioned Aversive Stimuli

Punishment (how do you make it work and when do you use it)

Choice behavior and change-over-delay

Matching Law

Differential Reinforcement of Other behavior

Backward chaining

Strategies animals use for successful mating

Foraging strategies

Defense systems of animals (especially prey)

Hunting behaviors of Predators

Cognitive / Developmental Courses

Developmental Psychology / Developmental Disabilities / Adulthood & Aging

Specific research methods used to study developmental issues (e.g., longitudinal)

Genetics of inheritance

Teratogens & prenatal development

Determinants of body growth

Early vs. Late maturity in adolescents

Perceptual development in infants

Language development in children

Theories of language acquisition, support for and against

Vocabulary spurt, overextension, underextension, overregularization

Piaget's & Erickson's stages of development across the lifespan and limitations of these theories

Freud's psychosexual theory and criticisms of it

Changes in intelligence & memory across the lifespan

Temperament

Theories & types of attachment

Moral development

Theories of gender-role development

Styles of parenting

Disabilities in children: mental retardation, learning disabilities, down syndrome, fragile X
ADHD, autism -- causes & treatments

Cognitive Psychology / Psychology of Language / Decision Making

Information-processing approach

Bottom-up vs. Top-down processing

Iconic & echoic memory studies

Template & feature detection theories

Criteria for automatic vs. conscious processing

Chunking

Forgetting theories

Proactive & retroactive interference

Episodic vs. Semantic long-term memory

Mnemonics

Recall vs. Recognition

Levels of processing & encoding specificity

Models of semantic long-term memory

False memory & the misinformation effect

Language universals

Phonology, semantics, syntax, pragmatics

Deep structure vs. Surface structure in language

Problem of invariance

Categorical perception

Speech perception

Broca's aphasia & Wernicke's aphasia

Retrograde and anterograde amnesia

Heuristics vs. Algorithms

Be able to describe some common heuristics & biases (e.g., confirmation bias, availability heuristic, representativeness heuristic, anchoring, simulation heuristic, hindsight bias)

Psychology of Women

Theories about gender differences (Freud, social learning, evolutionary, gender schema)

Feminism

Stereotyping & prejudice

Sexism, androcentrism

Androgyny

Be able to discuss gender differences & similarities in these areas:

Physical (e.g., sexual phases & desire, health, mortality)

Cognitive (e.g., verbal, math, visuospatial skills)

Social (e.g., communication, nurturance, empathy, aggression)

Mental health (e.g., depression, eating disorders, antisocial personality)

Achievement & motivation

Moral development

PMS and menopause

Discrimination & harassment

Rape & violence

Personality

Definition of personality

Biological approach

Learning approach

Humanistic/existential approach

Psychodynamic approach

Big issues: unconscious vs. Conscious; role of personal history; dynamic vs. Stable; biology vs.

Society

The big five