# AP PSYCHOLOGY Advanced Placement Exam Review Free Response Questions 1992-2009

# 1992 (3 content areas)

# Question #1 - Learning

Question #2 - Psychohterapy and Perspectives (explanations)

## 1993 (4 content areas)

#### Question #1 – Research Design and Memory (9pts)

Design and describe an experiment to measure the relationship between rehearsal/repetition of a list of words and later recall of that same list of words. In your answer you should formulate a hypothesis and include a description of each of the following.

- A. Population
- B. Subject selection
- C. Independent variable
- D. Dependent variable
- E. Experimental group
- F. Control group
- G. Potential confounding variable
- H. A method of reducing experimental bias

# Question #2 - Psychotherapy and Learning (10pts)

Describe the therapeutic procedure called systematic desensitization. Select a specific disorder for which this therapy is effective and explain how the basic phenomena listed below play a part in successful treatment.

- A. Anxiety hierarchy
- B. Relaxation
- C. Generalization
- D. Extinction

#### 1994 (4 content areas)

# Question #1 – Scientific Research Design (12pts)

Design an experiment to determine weather a new drug that is supposed to reduce hyperactivity in children actually does. Your essay should include and identification and description of all the components of your experimental design, including sampling, independent and dependent variables, controls, and the method that you would employ to evaluate the outcome.

# Question #2 - Learning, Memory, and Social Psychology (11pts)

One of the most useful generalizations in psychology is that "behavior is adaptive." Explain this generalization and then identify each of the following and describe how each could be adaptive.

- A. Repression
- B. Conformity
- C. Imprinting
- D. Displaced Aggression
- E. Loss of information form short term memory

#### 1995 (3 content areas)

### Question #1 – Scientific Research and Social Psychology (12pts)

Compare and contrast the experimental method and the survey method in terms of their suitability for investigating the hypothesis that frustration leads to aggressive behavior

In comparing and contrasting the two methods, be sure to identify and discuss each of the following.

- A. Independent variable
- B. Dependent variable
- C. Control
- D. Experimental and response bias
- E. Ethical issues

# Question #2 – Social Psychology and Perspectives (explanations) (10pts)

Define each of the following concepts and explain how each contributes to the phenomenon of prejudice.

- A. Stereotyping
- B. Self-fulfilling prophecy
- C. Fundamental attribution error
- D. Projection
- E. Schema

#### 1996 (6 content areas)

#### Question #1 - Biological Psychology, Personality, Perspectives (explanations) (10pts)

Discuss how social and biological factors have an impact on each of the following in the individual.

- A. Body weight
- B. Perception
- C. Alcoholism
- D. Extraversion
- E. Schizophrenia

#### Question #2 - Research Design and Motivation (10pts)

Professor Jackson believes that frustration increases the need for achievement. She decides to test her hypothesis with her introductory psychology class of about 100 students. The first 50 students who arrive for class one day are taken to a separate room and given a series of easy puzzles to complete. Professor Jackson then asks each student about his or her professional goals. She rates the statement of each on a 7-point scale for strength of achievement motivation.

When they arrive, the remaining students are taken to another room and given a series of difficult puzzles by Professor Jackson's teaching assistant Jim. Jim also asks each student about his or her professional goals and, like Professor Jackson, then rates the statement of each on a 7-point scale.

The group given the difficult puzzles ahs, on average, higher achievement motivation scores than the group given easy puzzles. Professor Jackson concludes that her hypothesis is supported.

Show how each of the following aspects of Professor Jackson's experimental design is flawed. Indicate how you would correct each problem.

- A. Sampling
- B. Assignment of participants
- C. Dependent variable
- D. Control for experimental bias
- E. Control of confounding variables (You need cite only one)

# 1997 (3content areas)

# Question #1 - Learning (10pts)

Many people are concerned about the effects of the use of physical punishment t to modify the undesirable behavior of children.

A. Basing your answer on physiological knowledge, apply each of the following in an argument against the use of physical punishment.

Modeling
Classical conditioning of fear
Displacement

B. How would psychologists use the following processes to modify children's undesirable behavior?

Positive reinforcement Extinction

# Question #2 - Personality and Perspectives (explanations) (10pts)

Although personality is generally consistent throughout the life span, some people exhibit major personality changes.

• How do each of the following help to explain BOTH continuity and change in personality?

Biological factors Learning factors Situational factors Cognitive factors

How would any TWO of the above interact to produce change in the trait of shyness?

# 1998 (5 content areas)

# Question #1 - Research Design and Social Psychology (12pts)

Read the following abstract of a student research project on bystander intervention and then answer the questions that follow.

The ten participants in the study were unaware of its purpose. The first five who signed up to be tested were assigned to the Alone condition and the next five were assigned to the With Others condition., each of the five participants was asked to wait in a room with several confederates of the researcher. During this waiting period, a male voice in the next room screamed out, asking for help.

In each condition, the percentage of participants who responded to the cry for help was recorder.

- A. Identify the independent and dependent variables in this study,
- B. Identify four flaws in the design of this study and the recommendations you would make to correct these flaws.
- C. Discuss an ethical issue raised by the design of the study.
- D. Use your knowledge of research in social psychology to describe the likely results of this study if correct methodology had been used.

# Question #2 - Memory, Psychotherapy, and Perspectives (explanations) (9pts)

A. Describe fully the distinctive emphasis of cognitive approach to human behavior and mental process. In your essay, be sure to specify how the cognitive approach differs from the following psychological approaches.

Psychodynamic/psychoanalytic Behavioral Biological

B. Give an example of the contribution of cognitive theory to the understanding of each of the following.

Memory

Depression

# 1999 (7 content areas)

# Question #1 - Biological Psychology, Learning, Stress/Health (8pts)

A. Describe the role each of the following mechanisms in determining an individual's eating habits and body weight.

<u>Biological Mechanisms</u> <u>Learning Mechanisms</u>

Body or brain chemistry

Brain structure

Genetics

Reinforcement

Modeling

Cultural Factors

B. Select one biological and one learning mechanism and discuss the implications of each for weight management.

#### Question #2 - Research Design, Memory, Intelligence, and Thinking (10pts)

In a study, researchers use a photograph taken in a public park to examine how people perceive, learn, and remember information. IN the photograph, a woman is standing near a man who is seated on a park bench. The woman appears to be shouting at the man.

Participants in the study are exposed to the photograph for ten seconds and then are shown, each for ten seconds, several other photographs of people interacting. When all the photographs have been shown, the participants are asked about what they saw in the "public park" photograph. A significant number of participants describe the man as being the aggressor in an apparent disagreement with the woman.

Describe how each of the following concepts helps explain the perceptions of these participants. Be sure to begin by defining each concept in psychological terms.

- Schema
- Retroactive interference
- Representativeness heuristics
- Confirmation bias
- Framing

#### 2000 (3 content areas)

# Question #1 - Research Design (11pts)

The police chief of New City sates publicly that she sees a direct relationship between teenage arrests in New City for violent crimes and the popularity among New City teens of especially violent television shows.

Design a correlational study to research this claimed relationship, being sure to address how each of the following design elements would apply to your study.

- Operational definition of variables
- Selection of participants
- Generalizability
- Two ethical considerations

The police chief concludes that watching violent television shows leads to teens' committing violent crimes in New City. Do you support her conclusion? Explain your response.

# Question #2 - Motivation and Learning (8pts)

Your high school is proposing moving to a system in which grades are no longer given or used to evaluate student progress.

Define each of the following concepts and state how each might either positively or negatively change student behavior under such a system.

- Extrinsic motivation
- Arousal theory (Yerkes-Dodson Law)
- Learned helplessness
- Self-fulfilling prophecy

# 2001 (7 content areas)

# Question #1 - Perspectives (explanations) and Psychotherapy (8pts)

- A. Discuss the cause of anxiety from each of the following perspectives.
  - Behavioral
  - Psychoanalytic/psychodynamic
  - Biological
  - Cognitive
- B. Discuss a specific treatment technique for reducing anxiety used by professionals representing each of the four perspectives.

## Question #2 - Sensation, Perception, Consciousness, Thinking, Memory (6pts)

Describe the psychological concept of expectancy or set. Discuss a specific example of how each expectancy or set affects each of the following.

- Human perception
- The effects of a psychoactive drug on a human
- A student's performance in the classroom
- Human problem solving
- Memory

#### 2002 (8 content areas)

# Question #1 - Motivation, Body Communication, Sensation, and Consciousness (10pts)

The human organism displays various reactions that are characterized by opposing tendencies. Use specific physiological or psychological mechanisms to explain how each of the opposing processes apply to EACH of the following.

- Appetite
- Autonomic nervous system
- Color vision
- Drug use
- Nerve firing

## Question #2 - Development, Learning, Language, Cognition/Memory (10pts)

Five year-old Jessie went to a fire station with her kindergarten class. When she got home, Jessie, who is in the preoperational stage of cognitive development, eagerly told the story of her adventure to her older brother. Describe how the following factors might have influenced the story she told. Be sure to define and provide an appropriate example of EACH factor.

- Egocentrism
- Observational Learning
- Overregularization or overgeneralization in language
- Reconstructive memory
- Schema

# Question #1 - Statistics, Intelligence, Psychometrics (10pts)

- A. Statistics are often used to describe and interpret the results of intelligence testing.
  - Describe three measures of central tendency (mean, medium, mode).
  - Describe a skewed distribution.
  - Relate the three measures of central tendency to a normal distribution.
  - Relate the three measures of central tendency to a positively skewed distribution.
  - An intelligence test for which the scores are normally distributed has a mean of 100 and a standard deviation of 15. Use this information to describe how the scores are distributed.
  - In two normal distributions, the means are 100 for group I and 115 for group II. Can an individual in group I have a higher score than the mean score for group II? Explain.
- B. Apply knowledge of psychological research in answering the following questions about intelligence scores.
  - Explain why norms for standardized intelligence tests are periodically updated.
  - Describe how to determine weather an intelligence test is biased.

## Question #2 - Operant Conditioning, Social Psychology, Motivation, Drug use (10pts)

- A. Define the following psychological concepts.
  - Cognitive Dissonance
  - Conformity
  - Incentive Motivation
  - Negative Reinforcement
  - Physiological addiction
- B. Use on specific example from each of the concepts in part A to explain how the concept might relate to either the development of or the continuation of a smoking habit. It is not necessary to use the same example for each concept.

#### Question #1 - Data Collection and Statistics (8pts)

Dr. Franklin investigated the relationship between stress and physical illness. She persuaded a high school principal to require all female athletes in the school to participate in her study. She explained the purpose of her research to the athletes and asked them to use a standard form to rate the severity of their stress over the last six months. More than 250 athletes completed the form. Then Dr. Franklin analyzed the forms returned by the first 100 athletes. She requested the attendance records from the nurse's office for each of those athletes to verify the number of days absent due to illness during the same six-month period. In the debriefing summary that Dr. Franklin sent to the 100 athletes after she completed the study, she stated that athletes who reported more stress also experienced more frequent illness. Dr. Franklin concluded that stress causes physical illness.

- Identify the research method used by Dr. Franklin.
- Describe the operational definitions of the TWO key variables that Dr. Franklin used in the study.
- Based on the information provided, describe ONE appropriate and ONE inappropriate ethical feature of the study.
- Identify ONE statistical technique that Dr. Franklin could use to represent the relationship between the variables in the study.
- Describe TWO aspects of the research design that weakens the validity of Dr. Franklin's conclusions that stress causes physical illness.

# <u>Question #2 – Development, Intelligence, Social Psychology, Emotion, Learning, Body Communication, and Perception (8pts)</u>

Time is an important variable in many psychological concepts. Describe a specific example that clearly demonstrates an understanding of each of the following concepts and how it relates to or is affected by time. Use a different example for each concept.

- Critical period
- Fluid Intelligence
- Group Polarization
- James-Lange theory of emotion
- Presentation of the conditioned stimulus (CS) and unconditioned stimulus (UCS) in classical conditioning
- Refractory period in nerve firing
- Sound localization
- Spontaneous recovery

#### 2005

<u>Question #1 - Perception, Cognition, Social Psychology, Development, Scientific Data Collection, and Memory (8pts)</u>

Describe a specific example that clearly demonstrates an understanding of how each of the following concepts can lead to an inaccurate perception, cognition, or conclusion. Each example must include an explanation of the relationship between the concept and the inaccuracy.

- Afterimage effect
- Available heuristics
- Ethnocentrism
- Groupthink
- Lack of object permanence
- Nonrandom assignment of research participants
- Optimistic explanatory style
- Proactive interference

## Question #2 – States of Consciousness, Development, Mental Disorders (9pts)

Psychologists conduct research to investigate controversial issues. Consider the following:

- The value of diagnostic labeling
- Children's acquisition of language
- Explanation of hypnosis
  - A. Describe the opposing points of view on each psychological issue listed above. Your description must provide one argument on each side of the controversy.
  - B. For each issue, choose one point of view to support. Using evidence from the psychological research, justify why you think this point of view is correct.

2006

#### Question #1

Psychologists use a variety of research methods to study behavior. Three of the main research methods used are

- Case study
- Correlation study, and
- Experiment.
  - A. Discuss one advantage of each research method listed above.
  - B. Discuss one disadvantage of each research method listed above.

Pretend you are a psychologist who will use each of the three research methods – case study, correlation study, and experiment – to determine the effect of taking vitamin J and improving memory.

C. For each method listed, explain a key characteristic of the basic approach you could use to reach a scientific conclusion about the relationship between vitamin J and improving memory. You need not design a complete study.

#### Question #2

Zoey wants to buy a new car but is having difficulty deciding what kind of car to buy. She is feeling anxious and wants to make a decision soon. Zoey visits several local car dealers and asks for the advice of some of her friends. Explain how each of the following could influence her decision. Be sure to discuss each concept in the context of Zoey's decision.

- Approach-approach conflict
- Central route to persuasion
- Heuristics
- Individualism
- Rationalization
- Self-efficacy
- The autonomic nervous system
- The foot-in-the-door phenomenon

#### Question #1

Ellie, a new student at Skinner High School, is determined to make new friends. When she attends the first psychology club meeting she finds herself in the room with twenty strangers who seem to know each other well. She plans to attend a few more meetings before deciding whether she will join.

A. Demonstrate how each of the following could HELP play a role in Ellie's quest for friendship. You may use a different example for each concept. Definitions will not score.

#### HELP

- The mere exposure effect
- Mnemonic device
- Schachter two-factor theory
- Locus of control
- B. Demonstrate how each of the following could HINDER Ellie's quest for friendship. You may use a different example for each concept. Definitions will not score.

## **HINDER**

- In-group bias
- Regression
- Operant conditioning
- Circadian rhythm

#### Question #2

Often misunderstood, schizophrenia is a psychological disorder affecting one percent of the population. In addition to treating the disorder, psychologists work to identify its nature and origins.

- Identify two characteristic symptoms used to diagnose schizophrenia.
- Discuss a research finding that supports a genetic basis for schizophrenia.
- What is the dopamine hypothesis regarding the origins of schizophrenia?
- Describe how medications used to treat schizophrenia affect the actions of neurotransmitters at the synapses.
- Identify a risk inherent in using medications in the treatment of schizophrenia.
- People sometimes confuse schizophrenia with dissociative identity disorder (DID). Identify two key characteristics that differentiate DID from schizophrenia.

#### Question #1

The Smith-Garcias are planning for their first baby. Both parents-to-be have had a psychology course and are looking forward to applying the principles they learned from theories and research that address child development.

A. Summarize one main idea or finding of each of the following four researchers.

•	Skinner's operant conditioning	Punishment/reinforcement
•	Bandura's social learning theory	Observational/vicarious learning
•	Ainsworth's attachment theory	Secure/avoidant/resistant bond
_	Paumrind's research on parenting styles	Authoritarian/authoritativa/parmicci

- Baumrind's research on parenting styles Authoritarian/authoritative/permissive
- B. Provide a specific example of actions the Smith-Garcias might take to raise their child to produce positive outcomes using each of the following theories below to address the corresponding psychological concept.
  - Skinner's operant conditioning: tantrum management
  - Bandura's social learning theory: sharing behavior
  - Ainsworth's attachment theory: self-reliance
     Baumrind's research on parenting styles: self-esteem
     Authoritative parents

# <u>Question #2</u> (Scored by Mr. Reinders)

We conducted a variation of Asch's (1951) conformity study in which participants made judgments about the length of lines. We randomly assigned participants to one of two conditions and told them that the study involved perceptual abilities. In the first condition, participants estimated the length of lines after hearing five people pretending to be participants (confederates) give inaccurate estimates. In the second condition, participants estimated the length of lines without hearing estimates of confederates. As we expected, participants in the first condition were less accurate in their estimates of line length, demonstrating the tendency to conform to majority influence.

A. How would each element below be related to the specific content of the experiment reported in the abstract?

Control group	Subjects in the 2 <sup>nd</sup>
condition	
Deception	Inaccurate estimations
Operational definition of the dependent variable	Length of line stated
Hypothesis	As we expected
Debriefing	Must reveal deception
	Control group condition Deception Operational definition of the dependent variable Hypothesis Debriefing

B. How might participants' estimates of line length in the study be related to the following?

•	Cognitive dissonance	Belief v. peer response
•	Maslow's hierarchy of needs	Need to be accepted

#### Question #1

Dimitri and Linda are trying to learn a new routine to compete successfully in a dance competition. Give an example of how each of the following could affect their performance. Definitions without an application do not score.

Extrinsic motivation
 Punishment
 Adverse consequence – deter behavior

Proactive interference
 Endorphins
 Previous memory blocks retrieval
 Hormone – natural painkiller

Vestibular system
 Sense of balance

Divergent thinking Creativity – multiple possibilities

Introversion Shy, quiet, reserved

# Question #2 (Scored by Mr. Reinders)

James is in a driver's education course preparing to take his driving test. The course includes both book work and driving on the road to prepare for a written test and a road test.

(a) Describe how each of the following might influence his ability to drive a car during the road test. Definitions without applications do not score.

Cognitive map Mental schematic, blueprint – relative to location

Cerebellum Voluntary movement, coordination

• Observational learning Modeling behavior of another (Highest scoring point)

• Human factors Human response to machine designed for personal use

(Lowest scoring point)

(b) Describe how each of the following are related to the results of the written test. Definitions without applications do not score.

Reticular formation
 State of arousal - alert/focused v. lethargic/comatose

(2<sup>nd</sup> lowest scoring point)

Predictive validity
 Semantic memory
 Accurate prediction of future behavior
 Language, factual information – trivia

(Most difficult point to score)

2010

#### Question #1

For each of the pairs below, use an example to show how the first term in each pair affects or is related to the

second. Definitions alone without examples will not score.

•	Serial-position effect recall	First/last item in a list easiest to recall
•	Functional fixedness problem solving	Inability to imagine novel use of an object
•	Operational definition replication	Coding allows others to duplicate research
•	Double-blind research bias	Information withheld from subject and
		researcher prevents self-fulfilling prophecy
•	Operant conditioning superstition	Consequence assumed related to luck
•	Reinforcement overjustification effect	Extrinsic motivator decreases intrinsic drive

Axon insulation speeds up neural impulse

# Question #2 (Scored by Mr. Reinders)

• Myelin sheath . . neural impulse

At a schoolwide pep rally preceding a big game at Williams James High School, each grade has a designated t-shirt color and seating area in the bleachers. Student leaders organize classes so that their colored shirts combine to form the school flag. The coach gives an exciting speech, the cheerleaders perform a routine, and the band plays the school song while the students sing in unison.

Explain the behavior and perceptions of the participants in the pep rally using the concepts below. Be sure to apply the concepts to the scenario in your explanation.

<ul> <li>Cocktail party effect</li> </ul>	Focus upon single voice among other noises
, ,	(2 <sup>nd</sup> lowest scoring point)
<ul> <li>Conformity</li> </ul>	Behavior based upon group
<ul> <li>Deindividuation</li> </ul>	Behavior in group unlike typical behavior when alone
<ul> <li>Figure ground</li> </ul>	Single stimulus placed in foreground/others in background
	(Lowest scoring point)
<ul> <li>Occipital lobe</li> </ul>	Vision (Highest scoring point)
<ul> <li>Procedural memory</li> </ul>	Specific physical task, step-by-step procedure
<ul> <li>Sympathetic nervous system</li> </ul>	Increased physical arousal