

AP Psychology Free Response Questions

- Below is a list of all of the Free Response Questions on the May AP Psychology Exam, dating back to 1993. Note that the topics are a mix of various units.
- Recall the hints for addressing the FRQs: Define – Example – Application
- See apcentral.org under Psychology for more information

1992 (3 content areas)

Question #1 – Learning

Question #2 – Psychotherapy 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.

- Population
- Subject selection
- Independent variable
- Dependent variable
- Experimental group
- Control group
- Potential confounding variable
- 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

- Anxiety hierarchy
- Relaxation
- Generalization
- Extinction

1994 (4 content areas)

Question #1 – Scientific Research Design (12pts)

Design an experiment to determine whether a new drug that is supposed to reduce hyperactivity in children actually does. Your essay should include an 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.

- Repression
- Conformity
- Imprinting
- Displaced Aggression
- Loss of information from 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.

- Independent variable
- Dependent variable
- Control
- Experimental and response bias
- 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.

- Stereotyping
- Self-fulfilling prophecy
- Fundamental attribution error
- Projection
- 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.

- Body weight
- Perception
- Alcoholism
- Extraversion
- 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 has, 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.

- Sampling
- Assignment of participants
- Dependent variable
- Control for experimental bias
- Control of confounding variables (You need cite only one)

1997 (3 content areas)

Question #1 – Learning (10pts)

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

- Identify the independent and dependent variables in this study,
- Identify four flaws in the design of this study and the recommendations you would make to correct these flaws.
- Discuss an ethical issue raised by the design of the study.
- 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)

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
- 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>
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Body or brain chemistry	Reinforcement
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Brain structure	Modeling
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Genetics	Cultural Factors
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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 s econds, 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 aggresso r 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)

Discuss the cause of anxiety from each of the following perspectives.

- Behavioral
- Psychoanalytic/psychodynamic
- Biological
- Cognitive

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

2003

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 whether 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

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.

2004

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.

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

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

Question #1 – Perception, Cognition, Social Psychology, Development, Scientific Data Collection, and Memory (8pts)

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

2006

Question #1 – Statistics and research Methods

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

- Case Study
- Correlational Study
- 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, Correlational study, and experiment) to determine the effect of taking vitamin J on improving memory

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

Questions #2 – Stress, Research Methods, Social Psychology, Neuroscience

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-Avoidance Conflict
- Central route to persuasion
- Heuristics
- Individualism
- Rationalization
- Self-Efficacy
- The Autonomic Nervous System
- The Foot-In-The-Door Phenomenon

2007

Question #1 – Memory, Learning, Altered Consciousness, Defense Mechanism

1. Ellie, a new student at Skinner High School, is determined to make 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 – Psychological Disorders

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

2008

Question #1 – Learning & Development

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
- Bandura's social learning theory
- Ainsworth's attachment research
- Baumrind's research on parenting styles

B. Provide a specific example of actions the Smith-Garcias might take to raise their child to produce positive outcomes using each of the theories below to address the corresponding psychological concept.

- Skinner's operant conditioning: tantrum management
- Bandura's social learning theory: sharing behavior
- Ainsworth's attachment research: self-reliance
- Baumrind's research on parenting styles: self-esteem

2009

Question #1 – Memory, Learning, Motivation, Biopsychology

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 application do not score.

- Extrinsic Motivation
- Punishment
- Proactive Interference
- Endorphins
- Vestibular System
- Divergent Thinking
- Introversion

Question #2 – Learning, Brain Biology, Memory

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 application do not score.
- Cognitive Map
 - Cerebellum
 - Observational Learning
 - Human Factors
- B. Describe how each of the following are related to the results of the written test. Definitions without application do not score.
- Reticular Formation
 - Predictive Validity
 - Semantic Memory

2010

Question #1 – Learning, Research Methods, Brain Biology, Memory, Intelligence

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
- Functional Fixedness . . . Problem Solving
- Operational Definition . . . Replication
- Double-Blind Research . . . Bias
- Operant Conditioning . . . Superstition
- Reinforcement . . . Overjustification Effect
- Myelin Sheath . . . Neural Impulse

Question #2 – Social Psychology, Perception, Neuroscience, Memory

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.

- Cocktail Party Effect
- Conformity
- Deindividuation
- Figure Ground
- Occipital Lobe
- Procedural Memory
- Sympathetic Nervous System

2011

Question #1 – Neuroscience, Research Methods

A researcher designs a study to investigate the effect of feedback on perception of incomplete visual figures. Each participant stares at the center of a screen while the researcher briefly projects incomplete geometric figures one at a time at random positions on the screen. The participant's task is to identify each incomplete figure. One group of participants receives feedback on the accuracy of their responses. A second group does not. The researcher compares the mean number of figures correctly identified by the two groups.

- C. Identify the independent and dependent variables in the study.
- D. Identify the role of each of the following psychological terms in the context of the research.
 - Foveal Vision
 - Feature Detectors
 - Gestalt Principle of Closure
- E. Describe how each of the following terms relates to the conclusions that can be drawn based on the research.
 - Random Assignment
 - Statistical Significance

Question #2 – Learning, Neuroscience, Cognition, Research Methods, Language, Memory

Savannah is a junior in high school and is preparing for an exam in her beginning Japanese course. The exam will consist of both written and spoken portions. Although it is her first course in Japanese, Savannah is confident that she will do very well on the exam.

- A. Describe how each of the following relates to Savannah's successful learning and performance.
 - Broca's Area
 - Use of Phonemes
 - Modeling
 - Chunking
- B. Describe how each of the following may hinder Savannah as she prepares for and takes the exam.
 - Encoding Failure
 - Age and Language Acquisition
- C. After the exam, Savannah tells her family and friends that she believes that she spoke fluently and did extremely well on the exam. Describe how each of the following concepts may have influenced her opinion.
 - Self-Efficacy
 - Confirmation Bias

2012

Question #1 – Intelligence, Social Psychology, Neuroscience, Memory, Disorders

- A. Annabelle is planning to apply to college but has not yet decided where she will apply. Describe how the following psychological concepts and terms relate to her choice.
 - Availability heuristic
 - Compliance
 - Prefrontal cortex
 - Prospective memory
- B. Explain how the following psychological concepts could relate to how well Annabelle adapts when she begins her college career.
 - Agoraphobia
 - Crystallized intelligence
 - Ethnocentrism

Question #2 – Sensation, Perception, Language, Neuroscience

For each of the following pairs of terms, explain how the placement or location of the first influences the process indicated by the second.

- Rods . . . peripheral vision
- A list of unrelated words . . . word recall
- Serotonin . . . reduction of depression
- Retinal disparity . . . depth perception
- Motor cortex . . . body movement
- Presence of others . . . performance
- Proximity . . . perception

2013

Question #1 – Research Methods, Memory

In response to declining reading scores in local schools, John wrote an editorial suggesting that schools need to increase interest in reading books by providing students with incentives. Based on research showing a relation between use of incentives and student reading, he recommended providing a free pizza coupon for every ten books a student reads.

A. Explain how each of the following psychological concepts can be used to refute John's argument.

- Correlational research
- Overjustification effect

B. Explain how schedules of reinforcement can be used to strengthen John's plan.

C. Explain how each of the following psychological phenomena could influence a reader's view of John's argument.

- Belief perseverance
- Central route to persuasion
- Retroactive interference
- Source amnesia

Question #2 – Research Methods, Intelligence, Neuroscience

A researcher compared the effectiveness of massed versus distributed practice in preparing for a memory test. Each of two groups memorized the definitions of 40 vocabulary words. In group A, there were 30 participants who were all under twenty-five years of age. Participants in group A used the method of distributed practice, studying for 30 minutes on each of four evenings. They were tested on the fifth morning at 7:00 A.M. In group B, there were 30 participants who were all over sixty years of age. Participants in group B used the method of massed practice, studying only from 6:30 P.M. to 8:30 P.M. on the evening before the test. They were tested the next morning at 7:00 A.M. All participants completed a recall test. The test measured how quickly participants recalled the definitions. The results showed that the mean difference between the distributed practice group and the massed practice group was statistically significant. The researcher provided a list of the names and test scores for each individual participant in a letter to all participants.

Part A

- What is the operational definition of the dependent variable?
- Explain how the ethical flaw in the study can be corrected.
- Explain how the research design flaw in the study can be corrected.
- In a well-designed study, what does it mean to say there is a statistically significant difference between groups?

Part B

How might each of the following concepts affect the results of the study?

- Fluid intelligence
- Circadian rhythm