

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Psychology 101 Exam 2**  
**Rice University, March 19, 2009**

*"On my honor, I have neither given nor received aid on this exam."*

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**Part I: Multiple Choice (40 questions worth 2 points each; answer them using your Scantron form)**

1. The smallest unit of sound that is recognizable as speech is called:
  - A) a phonoun.
  - B) a morpheme.
  - C) a phoneme.
  - D) a proneme.
  
2. A set of rules that specify how units of language can be combined to produce meaningful messages is called:
  - A) syntax.
  - B) morphology.
  - C) grammar.
  - D) deep structure.
  
3. Children overgeneralize the rules of the grammar that guides their spoken language, resulting in speech language errors. The predictability of these errors illustrates an important point regarding language development, namely:
  - A) language development comes about mainly through imitating adult forms of speech.
  - B) language development is primarily a matter of memorizing appropriate speech sounds and then repeating them.
  - C) language development is a hit-or-miss enterprise; children acquire language largely through trial and error.
  - D) language development is guided by implicit grammatical rules that children use to produce new sentences and verbal constructions they've never heard before.
  
4. Difficulty in producing or comprehending language is called:
  - A) asynomy.
  - B) apraxia.
  - C) aphasia.
  - D) dystaxia.

5. Items that are more easily accessible in memory are judged as having occurred more frequently. This mindbug or quirk of decision making is called:
  - A) the hindsight bias.
  - B) the frequency effect.
  - C) the availability bias.
  - D) the conjunctive fallacy.
  
6. \_\_\_\_\_ are “mental shortcuts” that may or may not be effective, whereas \_\_\_\_\_ are well-defined rules that guarantee a solution to a problem.
  - A) Judgments; decisions
  - B) Inductives; deductives
  - C) Algorithms; heuristics
  - D) Heuristics; algorithms
  
7. Simon is meek, tidy, quiet, and overly concerned with order and detail. People guess that he is a bookkeeper because of:
  - A) the availability heuristic.
  - B) the similarity heuristic.
  - C) the anchoring heuristic.
  - D) the representativeness heuristic.
  
8. People sometimes make decisions about a current situation based on what they have previously invested in the situation. This is known as:
  - A) the retroactive effect.
  - B) the sunk-cost fallacy.
  - C) the hindsight bias.
  - D) the blacktop illusion.
  
9. \_\_\_\_\_ refers to the meaning of a sentence, whereas \_\_\_\_\_ refers to how a sentence is worded.
  - A) Surface structure; deep structure
  - B) Semiotics; grammatics
  - C) Phonological structure; morphological structure
  - D) Deep structure; surface structure
  
10. Intelligence tests were initially designed by Alfred Binet and Theodore Simon to evaluate a child's:
  - A) creativity.
  - B) aptitude for learning.
  - C) academic achievement.
  - D) social class.

11. For hiring employees without previous experience, the most valid measure of future performance and learning is:
  - A) past job performance.
  - B) performance during a job interview.
  - C) education.
  - D) general mental ability.
  
12. \_\_\_\_\_ is a statistical technique that explains a large number of correlations in terms of a small number of underlying factors.
  - A) Multiple regression
  - B) Structural equation modeling
  - C) Factor analysis
  - D) Cluster analysis
  
13. Rose, who has an intelligence score of 70, can play the piano beautifully and without looking at any music. It is likely that:
  - A) Rose is autistic.
  - B) the IQ test that Rose took was administered incorrectly.
  - C) Rose is a prodigy.
  - D) Rose is a savant.
  
14. A statistic that describes the proportion of the differences among people's scores that can be explained by differences in their genetic makeups is called a(n):
  - A) analysis of variance.
  - B) t-test.
  - C) heritability coefficient.
  - D) genetic coefficient.
  
15. In the early days of intelligence testing, it is likely that \_\_\_\_\_ produced differences in intelligence levels of groups.
  - A) genetic differences
  - B) cultural bias in tests
  - C) heritability coefficients
  - D) IQ
  
16. What percentage of individuals have deviation IQ scores between 70 and 130?
  - A) 14%
  - B) 34%
  - C) 68%
  - D) 96%

17. The \_\_\_\_\_ is the single fertilized cell that contains chromosomes from both the sperm and the egg.
- A) Zygote
  - B) Embryo
  - C) Fetus
  - D) Germinus
18. When infants apply their schemas in novel situations, they are engaging in:
- A) assimilation.
  - B) accommodation.
  - C) object permanence.
  - D) habituation.
19. According to Jean Piaget's theory of object permanence:
- A) for infants, objects stop existing whenever they are out of sight.
  - B) infants apply their schemas in novel situations.
  - C) infants revise their schemas in light of new information.
  - D) infants construct schemas about the way the world works.
20. What did Jean Piaget name the cognitive stage of development in which individuals can think abstractly about concepts that may be nonphysical?
- A) sensorimotor
  - B) preoperational
  - C) concrete operational
  - D) formal operational
21. Covering her face with a blanket, Emily, a toddler, obviously believes she can no longer be seen. This is a good example of:
- A) conservation.
  - B) accommodation.
  - C) egocentrism.
  - D) mental representation.
22. The behavioral test used to determine a child's attachment style is the:
- A) strange situation.
  - B) parent-child interview.
  - C) attachment style test.
  - D) Wechsler test.

23. As we age, the \_\_\_\_\_ deteriorates more quickly than other areas of the brain.
- A) frontal cortex
  - B) limbic system
  - C) prefrontal cortex
  - D) temporal lobe
24. For most people, cognitive abilities are at their sharpest in:
- A) adolescence.
  - B) early adulthood.
  - C) middle adulthood.
  - D) late adulthood.
25. According to Lawrence Kohlberg, as a child develops, moral reasoning shifts from an emphasis on punishment to an emphasis on social rules and finally to an emphasis on:
- A) social understanding.
  - B) developmental understanding.
  - C) formal principles.
  - D) ethical principles.

Answer Key

- 1. C p. 254
- 2. C p. 255
- 3. D p. 259
- 4. C p. 262-263
- 5. C p. 275
- 6. D p. 275
- 7. D p. 277
- 8. B p. 277
- 9. D p. 256
- 10. B p. 339
- 11. D p. 343
- 12. C p. 345
- 13. D p. 350
- 14. C p. 353
- 15. B p. 357
- 16. D p. 340
- 17. A p. 407
- 18. A p. 413
- 19. A p. 413
- 20. D p. 413 & 416
- 21. C p. 416
- 22. A p. 422
- 23. C p. 439
- 24. B p. 439

25. D p. 427

26. Freud described the \_\_\_\_\_ as an active system encompassing a lifetime of hidden memories, a person's deepest instincts and desires, and that person's inner struggle to control these forces.
- A) subconscious
  - B) superego
  - C) dynamic unconscious
  - D) ego

Ans: c (304)

27. When sequestered in underground buildings without clocks or daylight, the body tends to adopt a regular rest-activity cycle of:
- A) 24 hours.
  - B) roughly 25 hours.
  - C) roughly 30 hours.
  - D) 12 hours.

Ans: b (309)

28. Alcohol, like other depressants, increases the activity of the neurotransmitter:
- A) serotonin.
  - B) norepinephrine.
  - C) GABA.
  - D) dopamine.

Ans: c (321)

29. When he opened the doors of his movie theater, Joe intended to have messages about popcorn and candy flashed very briefly on the screen to promote concession sales. Such messages are called:
- A) subliminal stimuli.
  - B) tricks of the trade.
  - C) unconscious motivations.
  - D) cognitive messaging.

Ans: a (306)

30. The class of drugs that produces the most extreme alterations of consciousness are the:
- A) stimulants.
  - B) hallucinogens.
  - C) depressants.
  - D) narcotics.

Ans: b (326)

31. The reduction of pain through hypnosis in people who are hypnotically susceptible is called:
- A) hypnotic amnesia.
  - B) posthypnotic suggestion.
  - C) the hypnotic placebo effect.
  - D) hypnotic analgesia.

Ans: d (330)

32. According to the James-Lange theory of emotion, if you stumbled onto a snake on a hike in the mountains, you would first \_\_\_\_\_ and then \_\_\_\_\_.
- A) experience fear; cognitively process the sighting
  - B) cognitively process the sighting; experience fear
  - C) experience fear; react physiologically
  - D) react physiologically; experience fear

Ans: d (371)

33. Which theory of emotion states that a stimulus simultaneously triggers activity in the autonomic nervous system and emotional experience in the brain?
- A) Schachter-Singer theory
  - B) James-Lange theory
  - C) Cannon-Bard theory
  - D) two-factor theory

Ans: c (371)

34. When his car went into a slide on the icy road, Julio said later, he felt intense fear at the same time that his heart thudded in his chest. His report best supports which theory of emotion?
- A) James-Lange theory
  - B) Cannon-Bard theory
  - C) two-factor theory
  - D) Schachter-Singer theory

Ans: b (370)

35. Fumiko wears a coat when she bikes to school in cold weather. This desire to stay warm is evidence of the body's tendency toward:
- A) balance.
  - B) rigidity.
  - C) homeostasis.
  - D) normality.

Ans: c (390)

36. Abraham Maslow believed that \_\_\_\_\_ needs are stronger than \_\_\_\_\_ needs.
- A) esteem needs; safety and security needs
  - B) self-actualization; belongingness
  - C) belongingness; physiological
  - D) physiological; esteem

Ans: d (391)

37. David McClelland and John Atkinson (1953) suggested that the need for achievement is:
- A) unhealthy.
  - B) a response to parental demands.
  - C) conscious.
  - D) unconscious.

Ans: d (399)

38. Research suggests that, all else being equal, \_\_\_\_\_ tend to be more powerful than \_\_\_\_\_.
- A) approach motivations; avoidance motivations
  - B) extrinsic motivation; intrinsic motivation
  - C) avoidance motivations; approach motivations
  - D) punishments; rewards

Ans: c (400)

39. A motivation to take actions that are rewarding in themselves is called:
- A) internal locus of control.
  - B) drive.
  - C) intrinsic motivation.
  - D) extrinsic motivation.

Ans: c (397)

40. One of psychology's proposed solutions to the problem of other minds, a solution that did not prevail over the years, was:
- A) structuralism.
  - B) behaviorism.
  - C) functionalism.
  - D) humanism.

Ans: b (296)

**Part II: Short answer (4 points each). Choose any 5 out of the following 7 questions. The length of your answers should range from just a short sentence or list, if that is sufficient, to a few sentences. Write your answers on the exam pages (use the back sides if needed). Be sure you are clear which five you are answering – cross out the two you are skipping if needed to clarify.**

41. If you were designing and building a system from scratch that could be sent to a distant galaxy to carry out a mission, what are three methods you could employ to make sure that the system you built – mechanical or biological – was sufficiently “motivated” to carry out its assignment effectively? **Answer:** 1. Make it reflexive or instinctive, like a robot/machine/simple animal that simply does what it’s instructed/programmed to do; 2. Make it fully cognitive, so that it “understands” what it needs to do and thus does all the right things; or 3. Give your creation a reward and punishment system, so that it experiences something pleasant when it does the appropriate thing and unpleasant when it does not. System 1 would eat/replenish itself because it’s programmed to do so; 2 because it knows this is the rationally correct thing to do; and 3 because eating feels good but being hungry feels painful.

42. Fear is a basic human emotion and surely the most negative of them all. What has psychological research told us about fear and how it works? **Answer:** Fear can be elicited reflexively (as when a loud noise startles us), or it can be generated through classical (Pavlovian) conditioning (as when the smell of a hospital makes us scared). Fear can be triggered through external stimuli such as the sight of a snake, or through purely mental experience (as when we experience a frightening dream or movie). Fear has a neural substrate to be sure, and the amygdala surely is involved in it; but people with damaged amygdalae experience fear nonetheless but are not good at spotting it in others.

43. The lectures and the textbook both pointed out that one often-asked question about intelligence is poorly phrased: Is any one person (say, Albert Einstein) smart because of nature or because of nurture (i.e., because of his genes or his environment / upbringing)? Why is this question not a good one, and how can it be restated to be meaningful and answerable? Answer: Asking whether a person's IQ results from nature or nurture is like asking whether a rectangle's area is attributable to its height or its width. Clearly both are essential – nothing would happen without both contributing. Asking which is more important is an unanswerable and essentially meaningless question. However, we can ask what proportion of the variance in IQ over a group of people is attributable to nature vs. nurture. If we had a set of genetic clones, by definition there would be no variation in their genes, so 100% of their variance in intelligence (or in weight, etc.) would have to be environmental in origin. If we had a set of people raised in identical environments, 100% of their variance likewise would have to be due to nature / genetics. Many of these questions were first asked and answered in the world of agriculture, where farmers needed to decide between spending their dollars on better feed vs. better breeding stock.

44. Eleanor Gibson of Cornell is famous for having created the Visual Cliff experiment. What was this experiment, and what did we learn from it? **Answer: this was an experiment in which babies were placed on a platform, one side of which was elevated and the other appeared to be on the low side of a cliff (but in fact was covered with a clear glass panel, so the cliff was purely visual). The result was that older babies were reluctant to crawl over the edge of the cliff, even if their mothers were calling for them to do that. Younger babies too young to crawl nonetheless showed effects on their heart rate from being placed on the cliff side. These findings suggest that babies are indeed able to perceive depth, as witnessed by their behavioral and emotional responses to it.**

45. Research on consciousness from both behavioral and neuroscience approaches has converged on two key factors that drive the diagnosis and treatment of people with impaired states of consciousness and has determined the degree to which people judge other people, animals, and objects to be conscious. What are these two factors, which were discussed, among others, by Dan Wegner and Nicholas Schiff in relation to the famous Terri Schiavo case? **Answer: Wegner calls the two factors experience and agency, but basically they refer to (1) how well the person/animal/thing experiences or senses the world and (2) how well it can react to and have an effect on that world too. So a rock neither senses the world nor affects it, whereas an adult human does both. A person with Alzheimers, or a fetus, may have high sensitivity to the world but diminished ability to act upon it. Similarly, neurologists dealing with unresponsive patients look for signs of perceptual sensitivity and motor abilities.**

46. A famous intellectual dispute took place over 50 years ago between the psychologist B.F. Skinner (of Skinner box fame) and linguist Noam Chomsky. What was their argument, and who ultimately prevailed? **Answer: Skinner claimed language is just another behavior shaped through reinforcement, as when rats press levers to get food. Chomsky argued instead that language is cognitively driven, based on rules rather than on behaviors and is guided by innate structures in the brain (language acquisition devices), as evidenced by cross-cultural universals in childhood development. Chomsky prevailed; language is now believed to be based on cognitive factors rather than on reward and punishment, and that it likely draws on specific neural structures built into the brain.**

47. Most people would rather take a sure \$100 than take a 50/50 chance on \$201, even though the latter has a higher expected value. What explanation has psychology offered to account for this result? **Answer: Prospect theory tries to incorporate a number of claims about these kinds of decision making processes. Prospect theory includes a graph that relates perceived value to objective value. If people were entirely rational, the graph should show a straight line passing through the origin with a slope of +1, meaning that the additional psychological worth of each dollar is the same. In practice, the graph is S-shaped, such that adding a second dollar to the first you've won does not make it seem twice as valuable. To Bill Gates, another dollar has almost zero worth, so the graph shows diminishing returns or "diminishing marginal utility." The graph also has a steeper slope for negative values – losses – than for positives – gains. Thus people are risk averse when gains are concerned but risk seeking when losses are**

concerned. Thus, people would prefer a 50/50 chance of getting a bill they must pay for \$201 over a sure-thing bill for \$100.