

THE UNIVERSITY OF WESTERN ONTARIO  
LONDON CANADA

Department of Psychology  
Psychology 020

Christmas Exam Dec. 15, 2005  
Time: 3 hours

Khan, Atkinson, Fazakas-Dehoog, Singhal

1. Time limit for this exam is 3 hours.
2. Before starting, please print your name, your instructor's name, and the course name at the top of the Scantron sheet. Then indicate your ID number and fill in the appropriate spaces. Print your name and student number at the bottom of this sheet as well.
3. There are **100 questions** on this exam. Read each question carefully and choose the **best alternative**. If you change your mind, be sure to **erase the first mark completely**.
4. There is no correction for guessing, so you should **answer all 100 questions**. **NOTE: the final 10 questions (91 – 100) are section specific. Answer the questions for your section only.** A list of sections is given at the bottom of this page.
5. Use the examination paper itself for all calculations or notes. **No electronic devices of any kind are permitted at your desk in the exam room (e.g., calculators, cell phones, pagers, electronic dictionaries, etc.).**
6. When you have completed the exam, raise your hand and one of the proctors will collect your answer sheet, pencil, and the examination paper. You may leave as soon as you are finished, but do so quietly so as not to disturb others.
7. If you have any questions at all, ask one of the proctors for assistance.
8. **NOTE: All research credits MUST be completed by April 7<sup>th</sup>. All paper reviews must be turned in to 7253 SSC by 4:00 p.m. on April 7<sup>th</sup>.**

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

*Kevin Day*

Student #:

Section 001 (Atkinson), T & R, 1:00 – 3:00; Section 002 ( Khan), TWR, 4:00 – 5:00, Section 003 (Fazakas-DeHoog), R, 7:00 – 10:00; Section 004 (Singhal), T & R, 12:00 – 2:00; Section 005 (Fazakas-DeHoog)

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- 1. A
- 2. B
- 3. D
- 4. B
- 5. C
- 6. B
- 7. E
- 8. D
- 9. D
- 10. A
- 11. B
- 12. A
- 13. C
- 14. B
- 15. D
- 16. E
- 17. E
- 18. C
- 19. B
- 20. D
- 21. A
- 22. A
- 23. D
- 24. C
- 25. C
- 26. B
- 27. C
- 28. E
- 29. D
- 30. E

- 31. D
- 32. A
- 33. A
- 34. A or C
- 35. A
- 36. A
- 37. C
- 38. D
- 39. E
- 40. B
- 41. A
- 42. D
- 43. E
- 44. B
- 45. D
- 46. B
- 47. B
- 48. B
- 49. A
- 50. C
- 51. B
- 52. D
- 53. B
- 54. A
- 55. E
- 56. A
- 57. D
- 58. D
- 59. A
- 60. D

- 61. C
- 62. D
- 63. B
- 64. A
- 65. C
- 66. E
- 67. D
- 68. E
- 69. A
- 70. B
- 71. B
- 72. A
- 73. B
- 74. B
- 75. C
- 76. C or E
- 77. E
- 78. B
- 79. C
- 80. A or B
- 81. C
- 82. C
- 83. D
- 84. D
- 85. C
- 86. E
- 87. A or B or C
- 88. A
- 89. E
- 90. B

- 1) How many questions are on this exam?
- A) 100
  - B) 1000
  - C) 10000
  - D) 1
  - E) depends on the meaning of the word "on"
- 2) Professor Josten has just published a study in which he reports that the more abstract a word is, the more difficult it is to memorize. His research would most likely be described as
- A) educational
  - B) basic research
  - C) applied research
  - D) field work
  - E) program research
- 3) Dr. Wolfe's work involves the use of introspection as a research method. Most likely, Dr. Wolfe would follow which perspective in Psychology?
- A) psychodynamic
  - B) Gestalt
  - C) functionalism
  - D) structuralism
  - E) behavioural
- 4) As you listen to one of your psych professors talking to a colleague, she uses the words hysteria and repression when speaking about memory. Most likely, she is speaking about which psychological perspective?
- A) social constructivism
  - B) psychodynamic
  - C) humanistic
  - D) neuroscience
  - E) sociobiology
5. A therapist tends to stress the conscious motivation of her clients, pointing to the human tendency for self-actualization. Most likely, she is a
- A) behaviourist    B) psychoanalyst    C) humanist    D) constructivist    E) methodologist
6. A psychologist explains prejudice in terms of implicit processing—how we tend to think about various groups at an almost automatic level. Such an explanation would be at which Level of Analysis?
- A) biological    B) psychological    C) environmental    D) unconscious    E) sociological

7. Dr. Chan is interested in the study of basic processes in learning and memory. He conducts his research in a laboratory. Most likely, Dr. Chan is
- A) a clinical psychologist
  - B) an educational psychologist
  - C) a social psychologist
  - D) a neuroscientist
  - E) an experimental psychologist
8. Your friend is a bit unsure about her answers to a number of the questions on this exam and has asked you for your opinion. She wants to know what she should do in the future. **According to the text**, you would recommend all of the following **EXCEPT**
- A) You can rule out some alternatives immediately. Eliminate them and choose from the rest.
  - B) Try to answer the questions before you look at the alternatives.
  - C) Answer the questions you know first, then come back to the more difficult ones.
  - D) Do not change your answers—your first guess is likely to be correct.
  - E) Check your progress from time to time and make sure that you are on track.
9. Which of the following is **not** a basic goal of psychology?
- A) to predict how people will behave under certain conditions
  - B) to explain the causes of behaviour
  - C) to describe how organisms behave
  - D) to treat patients in a clinical setting
  - E) all of the above are basic goals of psychology
10. You overhear two psychologists having an argument about a patient on their ward. Dr. Perls is talking about social forces and group processes as explaining the patient's behaviour, while Dr. Adler argues that perception and memory processes are more critical. Most likely,
- A) Dr. Perls is a sociocultural psychologist while Dr. Adler is cognitive psychologist
  - B) Dr. Perls takes the behavioural perspective while Adler adopts the biological approach
  - C) Perls is a humanist while Adler is a behaviourist
  - D) Perls is an educational psychologist while Adler is a developmental psychologist
  - E) Both follow the psychodynamic perspective
11. The fact that a person with a strong biological predisposition to depression may become depressed over a minor psychological issue supports the concept of
- A) empiricism
  - B) interaction
  - C) repression
  - D) insight
  - E) dualism

12. In survey research, \_\_\_\_\_ is a very important concept.

- A) random sampling
- B) the dependent variable
- C) a case study
- D) naturalistic observation
- E) an operational definition

13. A limitation of correlational research is that

- A) the data collected cannot be plotted
- B) the correlation coefficient only goes from -1.00 to 1.00
- C) the data do not permit cause and effect conclusions
- D) it only addresses questions that cannot be studied experimentally
- E) it does not allow us to make predictions about the variables

14. A control group

- A) must always be used in correlational research
- B) is not exposed to the experimental treatment
- C) cannot be used as a comparison to the experimental group
- D) must be deceived into believing they are receiving treatment
- L) all of the above

15. Tim was studying reaction time and recorded his participants' behaviour in the morning. After the completion of the experiment, Tim read that reaction time is influenced by whether the person is a 'morning' or 'evening' person. Therefore, 'morning/eveningness' could be a(n) \_\_\_\_\_ in Tim's experiment.

- A) demand characteristic
- B) experimenter expectancy effect
- C) placebo effect
- D) confounding variable
- E) threat to external validity

16. With respect to ethics and the use of deception in research,

- A) it should only be used when there is no other way to obtain natural, spontaneous responses from participants
- B) deception violates the principle of informed consent
- C) the participant should be told the true purpose of the study when it is over
- D) the benefits should clearly outweigh the ethical costs
- E) all of the above

17. Demand characteristics

- A) are when the experimenter influences the participant's behaviour in favour of the hypothesis
- B) are cues the participant picks up about the hypothesis and how they are suppose to behave
- C) can lead to the participant deliberately attempting to foil the experimenter's hypothesis
- D) increase internal validity
- E) B and C above

18. Self-report measures may be distorted by

- A) the placebo effect
- B) experimenter expectancy effects
- C) the social desirability bias
- D) demand characteristics
- E) hindsight understanding

19. A good theory should

- A) not follow the law of parsimony
- B) be testable
- C) produce predictions that are different and do not support findings of new research
- D) be regarded as absolute truth
- E) none of the above

20. Which of the following is NOT a step, mentioned in the text, in the scientific process?

- A) making an initial observation
- B) forming a hypothesis
- C) further research building
- D) informed consent
- E) analyzing data

21. Unobtrusive measures

- A) record behaviour in a way that keeps the participant unaware that they are being observed
- B) ensure that surveys do not ask particularly personal questions
- C) are a necessity for correlational methods
- D) are widely used in experimental research
- E) refers to the method used to observe behaviour over a very long period of time

22. A psychologist is studying the effects of orange juice on the prevention of colds. She has one group drink a glass of orange juice every day for the month of December. A second group drinks a glass of orange juice once a week during December, while a third group is not given any orange juice at all during this time period. Previous medical histories were obtained for all the participants. In January, she records how many colds each participant gets over the entire month. In this study, the independent variable is
- A) the amount of orange juice consumed
  - B) the number of colds each participant got in January
  - C) the prior medical histories
  - D) drinking orange juice every day
  - E) the severity of the colds in January
23. Neurotransmitter substances are stored in the \_\_\_\_\_ of the neuron, and after an action potential fires at the axon terminal, the neurotransmitters \_\_\_\_\_.
- A) dendrites; are released into the soma of the neuron
  - B) myelin sheath; are released into the axon of the neuron
  - C) glial cells; bind to receptor sites on the post synaptic membrane
  - D) synaptic vesicles; are released into the synapse
  - E) nodes of Ranvier; are deactivated and broken down in the axon of the neuron
24. If a neuron has a charge of  $-85$  mv, which of the following is most likely true?
- A) the neuron is depolarized and in its resting potential phase
  - B) the neuron is depolarized and at its action potential threshold
  - C) the neuron is hyperpolarized and is in its refractory period
  - D) the neuron is hyperpolarized and in its action potential phase
  - E) the neuron is polarized and in its resting potential phase
25. As Amy is studying at her desk, she hears a loud crash behind her. Instantly her heart begins to race, her breathing becomes faster, and her pupils dilate. This intense physiological arousal is caused by the activation of her \_\_\_\_\_.
- A) autonomic nervous system
  - B) somatic nervous system
  - C) sympathetic nervous system
  - D) parasympathetic nervous system
  - E) both B) and D) above
26. For the majority of right-handed males, which of the following abilities is least likely to be lateralized in the right hemisphere?
- A) the ability to recognize musical melodies
  - B) the ability to identify letters that make up a word
  - C) the ability to recognize facial features
  - D) the ability to copy three dimensional designs
  - E) the ability to draw a map of the route between 2 destinations

27. Regarding brain structure and function, the \_\_\_\_\_ is critical for controlling voluntary muscle movement and initiating voluntary movement, whereas the \_\_\_\_\_ is critical for controlling reflexive, automatic movements.

- A) thalamus; basal ganglia
- B) cerebellum; amygdale
- C) basal ganglia; cerebellum
- D) thalamus; hippocampus
- E) medulla; pons

28. The fact that researchers have found that rat pups that were raised in a stimulating early environment have larger neurons and more dendrite branches supports

- A) the idea that brain development is primarily genetically determined
- B) the idea that the environment has an important impact on brain development
- C) the idea of neural plasticity
- D) All of the above
- E) Only B) and C) above

29. According to the information in the textbook on plasticity in the brain, which of the following is/are true?

- A) A child who suffers brain damage is likely to recover more brain function than an adult with similar brain damage.
- B) Researchers have reported evidence for neurogenesis in the hippocampus of both primates and adult humans.
- C) Researchers have found that in adulthood, the human brain is not capable of developing new neurons.
- D) Both A) and B) above
- E) Both A) and C) above.

30. An autoimmune reaction occurs when

- A) the body automatically identifies an external antigen, such as bacteria, and develops antibodies
- B) the body automatically remembers external antigens, such as bacteria, that it has encountered previously
- C) the immune system automatically identifies changes in neurotransmitter levels
- D) the immune fails to develop antibodies to fight external antigens
- E) the immune system mistakenly identifies a part of the body as a foreign antigen and attacks this body tissue

31. The area of the cerebrum that receives the sensory input that gives rise to our perception of heat, touch cold, and our senses of balance and body movement is the \_\_\_\_\_, which is located in the \_\_\_\_\_.

- A) occipital cortex; temporal lobe
- B) somatic sensory cortex; prefrontal lobe
- C) auditory cortex; parietal lobe
- D) somatic sensory cortex; parietal lobe
- E) Wernicke's area; frontal lobe

32. A right-handed split brain patient is staring straight ahead at a screen and pictures are briefly flashed in both visual fields. A picture of a hammer is flashed to the left visual field and a picture of a rock is flashed to the right visual field. If the patient is asked to reach under the screen with their left hand and pick up what they saw, what will happen?
- A) the patient will pick up the hammer
  - B) the patient will pick up the rock
  - C) the patient will comment that they do not know how to do this task
  - D) the patient will pick up any object except the rock or hammer
  - E) the patient will pick up both the rock and the hammer
33. A new neurotransmitter (Substance Z) has been discovered which seems to be exclusively excitatory. Thus, you would expect Substance Z to have which of the following effects at the postsynaptic membrane?
- A) Substance Z should depolarize the postsynaptic membrane
  - B) Substance Z should hyperpolarize the postsynaptic membrane
  - C) Substance Z should fail to bind to receptor sites
  - D) Substance Z should initiate reuptake at the postsynaptic membrane
  - E) Substance Z will only bind to a postsynaptic membrane<sup>3</sup> that is unmyelinated
34. Which of the following statements is false?
- A) If a gene is recessive, the trait will be present if only one of the parents has the gene
  - B) Monozygotic twins are more similar than dizygotic twins.
  - C) Individuals are more genetically similar to their biological grandparents than they are to their biological siblings.
  - D) The DNA portion of the chromosome carries the hereditary blueprint in units called genes.
  - E) One chromosome from every pair is from each biological parent.
35. Both Kala and Danika have the same genes for blond hair, but, Kala's hair is much darker blond than Danika's. Most likely
- A) Kala and Danika have similar genotypes, but different phenotypes
  - B) Kala and Danika have identical phenotypes, but different genotypes
  - C) Kala and Danika have similar DNA, but different genotypes
  - D) Kala and Danika have identical phenotypes and identical genotypes
  - E) None of the above
36. Based on the large body of research that has been done using behavior genetic techniques, which of the following human characteristics has the highest heritability estimates?
- A) height
  - B) school achievement
  - C) emotional stability
  - D) activity level
  - E) sociability

37. In determining the effects of hereditary and environmental influences on a particular trait, behavioral geneticists often compare monozygotic twins and dizygotic twins on a given trait. It is then assumed that if monozygotic twins have a higher concordance rate on a trait, that the trait is highly heritable. One of the difficulties or criticisms with this technique is that
- A) monozygotic twins are not more genetically similar to one another than dizygotic twins are
  - B) recent research has indicated that dizygotic twins are actually more genetically similar to one another than monozygotic twin pairs are
  - C) if monozygotic twins are raised together any similarities may also be due to environmental similarities because individuals may treat them more alike than dizygotic twins
  - D) it is not possible to study the effects of genetics and environmental influences on specific traits or behavior
  - E) concordance rates may be influenced by social desirability
38. Which of the following concepts allows for the effect of both genetics and environmental influences in the outcome of a particular trait?
- A) genotype
  - B) social darwinism
  - C) genetic determinism
  - D) biological reaction range
  - E) kin selection
39. As was presented in the textbook, in one of the most influential papers on modern evolutionary theory, Robert Trivers (1972) used sex differences in parental investment to explain different mating systems. Trivers argued that polygyny should be the most common mating arrangement if
- A) female parental investment is high
  - B) male parental investment is low
  - C) female parental investment is low
  - D) Both B) and C) above.
  - E) Both A) and B) above.
40. The procedure in which researchers use certain enzymes to cut the long threadlike molecules of genetic DNA into pieces, combine them with DNA of another organism, and then insert them into a host organism (such as a bacterium) is referred to as
- A) gene knockout technique
  - B) recombinant DNA procedures
  - C) genetic mapping
  - D) eugenics
  - E) natural selection
41. According to the "Kin Selection theory of Altruism", who would you be most likely to help?
- A) your biological sibling
  - B) your biological grandparent
  - C) your adopted (non-biological) sibling
  - D) your best friend
  - E) a stranger

42. According to "evolutionary personality" theorists (such as David Buss), there are a limited number of personality traits that are universal in all cultures. Further, such theorists argued that these universal traits evolved because
- A) they have contributed to the physical survival of humans
  - B) they have contributed to the reproductive success of the species
  - C) over time through the process of natural selection, they have become part of human nature
  - D) All of the above
  - E) None of the above
43. Consider the research on gender preferences for the ideal mate from the large study (Buss), where 50 scientists administered questionnaires to women and men from 37 cultures around the world. The results of this study found that
- A) both females and males rated love/mutual attraction as the single most important characteristic in a mate
  - B) females rated attractiveness as more important in a mate than men did
  - C) males rated good health as more important in a mate than women did
  - D) all of the above
  - E) only A) and C) above
44. The concept of \_\_\_\_\_ states that genes have a predetermined, invariant and unavoidable effect on traits and behavior.
- A) empiricism
  - B) genetic determinism
  - C) kin selection
  - D) biological reaction range
  - E) adaptation
45. In the visual system, rods
- A) are more commonly found in the fovea
  - B) function best in bright illumination
  - C) take less time than cones to fully adapt to the dark
  - D) are primarily black-and-white brightness receptors
  - E) none of the above
46. With respect to theories of colour vision
- A) the trichromatic theory is correct in that there are three types of colour receptors in the cortex: red, green, and yellow
  - B) the opponent-process mechanisms occur beyond the cones, from the ganglion cells to the visual cortex
  - C) the opponent-process theory cannot explain negative colour afterimages
  - D) the opponent-process theory is correct in that there are three types of cones, each responding to two different wavelengths
  - E) when all wavelengths of light are added together, one sees black

47. In the auditory system

- A) the semicircular canals are key to the perception of sound
- B) the basilar membrane has specific points which are stimulated by particular frequencies
- C) the cochlea is air-filled
- D) nerve deafness is temporary and can be recovered from
- E) the ossicles are part of the outer ear

48. Which of the following is NOT true?

- A) To fully taste something, one needs the sense of smell.
- B) Because there are taste buds on the roof and back of the mouth, a person without a tongue could still experience taste.
- C) The centre of the tongue is a relatively insensitive area with respect to taste.
- D) The perception of taste results from the stimulation of a particular area on the tongue.
- E) A taste bud consists of more than one receptor cell.

49. Which of the following is NOT a Gestalt Principle of Organization?

- A) Constancy
- B) Closure
- C) Proximity
- D) Continuity
- E) Similarity

50. Which of the following is NOT a monocular cue of depth?

- A) Linear perspective
- B) Light & shadow
- C) Disparity
- D) Relative size
- F) Motion parallax

51. In signal detection theory

- A) a false alarm is when the stimulus was present and the participant said "absent"
- B) a miss is when the stimulus was present and the participant said "absent"
- C) a correct rejection is when the stimulus was present and the participant said "absent"
- D) a hit is when the stimulus was absent and the participant said "absent"
- E) none of the above

52. Which of the following is true?

- A) Weber's fraction suggests that our sense of taste is our most sensitive sensory system.
- B) Weber's Law states that the difference threshold is solely proportional to one's strength.
- C) The difference threshold is the smallest difference between two stimuli that one can detect 100% of the time.
- D) If a Weber fraction is 1/10 and you lift a 100 lb. weight, a second weight would have to be 110 lb. in order to feel the difference.
- E) none of the above

53. The reason we cannot see things that fall on our blind spot is because

- A) the cones in that area do not contain photopigments
- B) there are no receptors in the optic disk
- C) the image is inverted and reversed
- D) the lens cannot bend the incoming light rays enough to focus the image
- E) the pupil cannot dilate enough to allow sufficient light to focus the image on this point of the retina

54. Dark adaptation

- A) takes longer for rods
- B) produces greater sensitivity in the cones than in the rods
- C) takes longer when moving from an environment of red light to darkness
- D) is the process by which photoreceptors are depleted of pigment molecules
- E) only takes 10 minutes for both rods and cones

55. Sound localization works on the premise that

- A) any sound that is not directly centred in front of us, will reach each ear at different times
- B) any sound that is directly in front of us, will not differ in magnitude when it reaches our two ears
- C) any sound that is not directly centred in front of us, will have a different magnitude at each ear
- D) sounds arrive first and loudest at the ear closest to the sound
- E) all of the above

56. Which of the following most accurately describes a typical night's sleep?

- A) With each successive cycle, the amount of time spent in REM sleep increase
- B) With each successive cycle, the amount of time spent in deep slow-wave sleep (stages 3 and 4) increases.
- C) The same amount of time is spent in each of the stages later in the night as was spent in each of the stages earlier in the night.
- D) The amount of time spent in each of the stages later in the night is longer than the amount of time spent in each of the stages earlier in the night.
- E) The amount of time spent in each of the stages later in the night varies greatly, so a typical night's sleep cannot be described accurately.

57. Following an intense, 4 hour exam, sleep is usually deeper and lasts somewhat longer. This supports the \_\_\_\_\_ theory of sleep.

- A) peripheral feedback
- B) circadian rhythm
- C) preservation and protection
- D) restoration
- E) evolution

58. Emily recently began working the night shift from midnight until 8:00 am. She is having difficulty staying awake at night and sleeping during the day because of the disruption to her \_\_\_\_\_.
- A) homeostasis
  - B) synchronization
  - C) motivational state
  - D) circadian rhythm
  - E) attention
59. Two weeks of final exams filled with stress and too much caffeine has caused you to suffer from the inability to fall asleep, or \_\_\_\_\_.
- A) Insomnia
  - B) Nonsomnia
  - C) Narcolepsy
  - D) Somnambulism
  - E) Sleep apnea
60. Dr. Phil believes that dreams are essentially meaningless – the by-product of the cortex interpreting random neural activity. His belief is consistent with which of the following theories?
- A) Freud's psychodynamic theory
  - B) problem-solving model
  - C) fantasy-prone model
  - D) activation-synthesis
  - E) opponent process
61. As an experiment, you decide to train three groups of monkeys on a visual task just prior to sleep. Monkeys in group 1 are deprived of REM sleep. Monkeys in group 2 are deprived of slow-wave sleep. Monkeys in group 3 are allowed to sleep normally. The next morning, the monkeys are retested on the same visual task. You find that groups 2 and 3 perform better than they did the night before, while group 1 performs the same or worse. Your findings clearly support the role of:
- A) slow-wave sleep in physical restoration
  - B) REM sleep in physical restoration
  - C) REM sleep in memory consolidation
  - D) sleep as a biological rhythm that affects motor performance.
  - E) dreams as a side effect of neural exercise.
62. Tolerance to drugs stems from the body's attempt to maintain:
- A) compensatory responses
  - B) withdrawal
  - C) emotional dependence
  - D) homeostasis
  - E) antagonist responses

63. A new drug, Suproxin, tends to inhibit or decrease the action of a specific neurotransmitter. You would classify Suproxin as a(n):
- A) Agonist      B) antagonist      C) hallucinogens      D) stimulants      E) amphetamines
64. According to the division of awareness theory of hypnosis, one stream of consciousness responds to the hypnotist's suggestions, while the other stream:
- A) monitors behaviour while remaining in the background  
B) ignores behaviour while remaining in the background  
C) monitors behaviour while not remaining in the background  
D) ignores behaviour while not remaining in the background  
E) monitors behaviour while competing with the other stream
65. As you go from being alert, to being relaxed, to being asleep, your EEG wave patterns progress from
- A) alpha waves to beta waves to delta waves  
B) alpha waves to delta waves to beta waves  
C) beta waves to alpha waves to delta waves  
D) beta waves to delta waves to alpha waves  
E) delta waves to alpha waves to beta waves
66. Sleepwalking takes place during:
- A) stage 1 sleep  
B) stage 2 sleep  
C) REM sleep  
D) Stages 1 or 2 of sleep  
E) Stages 3 or 4 of sleep
67. Jerome notices that his pet kitty, Tiger, jumps in reaction to a door slamming in his dorm room. A few seconds later, the door slams again. Over the next 5 minutes, the door slams 20 times. Jerome notices that as Tiger continues to hear the door slam, Tiger jumps less and less each time. Tiger's response illustrates the principle of
- A) spontaneous recovery  
B) discrimination training  
C) generalization  
D) habituation  
E) extinction

68. Zack and his mom are baking cookies together for the first time. The first time the oven timer goes off, Zack shows no particular response. Then Zack gets to eat one of the cookies from the cookie tray that his mom pulls out of the oven, causing his mouth to water. From then on, every time Zack hears the oven timer, Zack's mouth begins to water. This is best described as
- A) operant conditioning, with the sound of the oven timer as the negative reinforcer
  - B) operant conditioning, with mouth watering as the negative reinforcer
  - C) classical conditioning, with mouth watering as the conditioned stimulus
  - D) classical conditioning, with the sound of the oven timer as the unconditioned stimulus
  - E) classical conditioning, with the sound of the oven timer as the conditioned stimulus
69. A child doesn't hesitate to run into a room whenever he smells the perfume his mom wears, but not when he smells other perfumes. This phenomenon would be considered an example of
- A) stimulus discrimination
  - B) habituation
  - C) extinction
  - D) generalization
  - E) observational learning
70. Tony hits his younger brother, Frankie, with their grandfather's brown walking cane. Frankie cries at the sight of the brown walking cane for weeks after. Frankie also cries at the sight of a brown baseball bat and a brown broom but not in response to a brown marble or a silver baseball bat. This example illustrates
- A) chaining
  - B) generalization
  - C) extinction
  - D) habituation
  - E) discrimination
71. Thorndike's law of effect states that
- A) a stimulus will elicit a conditioned response if paired with an unconditioned stimulus
  - B) responses leading to satisfying results become more likely to be repeated, and those leading to unpleasant results become less likely to be repeated
  - C) the effect of experiencing two events together is that they will tend to be associated in the future
  - D) the effect of experiencing two events together is that they will not be associated in the future
  - E) any response that produces an effect will tend to be repeated in the future
72. A dog trainer wants a puppy to lie down on a specific rug. She might therefore reward the puppy for staying within five feet of the rug, then only for staying in physical contact with it, then only for actually lying on it. This strategy uses the technique called
- A) Shaping
  - B) discrimination
  - C) generalization
  - D) extinction
  - E) chaining
73. The procedure in which only some of the correct operant responses are reinforced is called
- A) observational learning
  - B) partial reinforcement
  - C) extinction
  - D) negative reinforcement
  - E) positive reinforcement

74. Whenever your sister plays her drums, you bang on the wall between your and her room to get her to stop. Given the fact that she stops playing her drums, which makes you likely to bang on the wall the next time she plays, your behaviour is under the influence of
- A) positive reinforcement
  - B) negative reinforcement
  - C) positive punishment
  - D) negative punishment
  - E) operant extinction
75. You scold your baby brother for chasing your pet dog, Fluffy, into the street. Thereafter, your baby brother does not do it again. This is due to
- A) positive reinforcement
  - B) negative reinforcement
  - C) positive punishment
  - D) negative punishment
  - E) operant extinction
76. Elliott always take the same route through the city to get to his first class in the morning. One day, a bad traffic accident blocks his usual route, but he is able to get to his class by using a route he has never taken before based on his knowledge of the city's layout. Elliott has used
- A) ecological learning
  - B) observational learning
  - C) a cognitive map
  - D) stimulus enhancement
  - E) latent learning
77. Sandra watches her dad care for Kevin, her newborn baby brother, while he is bathing him. Later, Sandra plays with her dolls in a gentle manner as she pretends to bathe them. Sandra is demonstrating
- A) habituation
  - B) classical conditioning
  - C) operant conditioning
  - D) latent learning
  - E) observational learning

78. When studying for this exam, you decided to read over your notes several times. Your room-mate decides to only read her notes once but to try to find to find personal experiences which relate as many concepts as possible. Who will have greater recall when the exam actually takes place?
- A) You will because maintenance rehearsal techniques have proven to be most effective.
  - B) Your room-mate will because finding personal meaning for new information has been found to be most effective.
  - C) You will both have equal recall as long as you spend equal time in the learning process.
  - D) Neither of you will have good recall because neither of these techniques have been found to be effective.
  - E) Study techniques are not nearly as important as basic intelligence and understanding of the information to be recalled.
79. You have not played tennis is years but your friend has asked you to come along to the new courts. You are confident that your skills will return to you after a few serves. You are relying on the use of
- A) declarative memories
  - B) episodic memories
  - C) procedural memories
  - D) iconic memories
  - E) echoic memories
80. Remembering your first grade teacher's name and which school you attended are examples of
- A) declarative memories
  - B) episodic memories
  - C) procedural memories
  - D) iconic memories
  - E) echoic memories
81. Hypnotic therapy often involves having the patient first remember the emotions involved with the forgotten memories and then recalling the details of the event. This techniques demonstrates the power of
- A) episodic memories
  - B) declarative memories
  - C) state-dependent memories
  - D) flashbulb memories
  - E) emotional memories

82. Jane was born to parents who spoke only Italian to her when she was a small child. When she started school, she began to learn English. On several occasions she had difficulty remembering the Italian words for things and could only use the English labels. This is an example of
- A) proactive interference
  - B) poor cross memories
  - C) retroactive interference.
  - D) wrongful declarative memories.
  - E) language interactions
83. John suffered a head injury in a car accident and now has problems remembering anything that happened in the days following the accident. John is likely suffering from
- A) retrograde amnesia
  - B) motivated forgetting
  - C) trace memory decay
  - D) anterograde amnesia
  - E) encoding failure
84. H.M., the man who had his hippocampus removed when he was 27 years old, would have the greatest difficulty with which one of the following tasks?
- A) recounting his experiences as a teenager
  - B) learning a new motor task such as the mirror-tracing task
  - C) any task involving implicit memory
  - D) recounting the events around the 9/11 disaster
  - E) remembering that when he was 11 years old his beloved dog had died
85. Which of the following types of processing would result in the best preparation for this exam?
- A) automatic, structural, maintenance
  - B) effortful, phonological, maintenance
  - C) effortful, semantic, elaborative
  - D) automatic, phonemic, maintenance
  - E) three component storage
86. The expert football coaches in the text recalled more logical play information than novices because the coaches
- A) had seen all possible logical combinations before
  - B) had played the game while the novices had not
  - C) used mnemonic strategies
  - D) processed the information " automatically" while novices processed it effortfully
  - E) had developed schemata which made their encoding more efficient

87. It used to be said of a particular public figure that he couldn't walk and chew gum at the same time. You, however, might be walking, while experiencing a classically conditioned fear of sidewalk cracks plus recalling the statistics for injuries related to such cracks. Which three memory systems are working simultaneously here?
- A) procedural, procedural, declarative(semantic)
  - B) procedural(nondeclarative), episodic, semantic
  - C) explicit, implicit, procedural
  - D) implicit, episodic, classical
  - E) declarative, episodic, semantic
88. If Ebbinghaus' forgetting curve applied to introductory psychology content, you would obtain the highest possible mark if you
- A) stood up from studying and wrote the test immediately
  - B) studied psychology, watched a Chaplin movie and wrote the test
  - C) write the test in the same room where you had studied
  - D) incorporated nonsense syllables into your study material
  - E) linked his "massed practice" strategy with overlearning
89. Consider the following distribution: 1, 2, 5, 6, 1. Which of the following is true?
- A) the mean equals 5
  - B) the mode is greater than the mean
  - C) the range is equal to the mean
  - D) the distribution is normal
  - E) the median equals 2
90. The correlation between time spent studying and one's grade on a psychology exam is +.73. At the same time, the correlation between hours of TV watched and psych grades is -.81. From these observations we can conclude
- A) the correlation between grades and study time is stronger than the correlation between grades and TV viewing
  - B) grades decrease as hours of TV watched increase
  - C) the more you study, the lower your grade
  - D) the more you watch TV, the less you study
  - E) A and B above

**Questions 91 – 100 are specific to each section of Psych 020.  
Please answer the questions for your section only.**

**Section 001 Atkinson  
Tuesday & Thursday  
1:30 – 3:30 p.m.**

**Section 002 Khan  
Tuesday, Wednesday, Thursday  
4:30 – 5:30 p.m.**

**Section 003 Fazakas-DeHoog  
Thursday  
7:00 – 10:00 p.m.**

**Section 004 Singhal  
Tuesday, Thursday  
12:30 – 2:30**

**Section 005 Fazakas-DeHoog  
Monday, Wednesday  
4:30 – 6:30 p.m.**

# SECTION 001



91. While studying for this exam, Josh thought it would be fun to test Weber's Law. So, he set the loudness on his stereo to 20 db. And increased the volume until he could report a JND. This occurred at 25 db. Next, he adjusted the stereo to a new level and found that a JND was now reported at 50 db. What was the new test intensity?
- A) 20 db.
  - B) 40 db.
  - C) 50 db.
  - D) 25 db.
  - E) 45 db.
92. Scientists have discovered a new species of fish. Examining the retina, they report a number of cells similar to the human retina. In particular they comment on the existence of horizontal cells. Which of the following would you also expect to find in this fish retina?
- A) monocular cuing
  - B) simple cells
  - C) lateral inhibition
  - D) grandmother cells
  - E) bug detectors
93. The fact that The McCulloch Effect (red vertical and green horizontal stripes) lasts a long time suggest that
- A) the effect must occur at a level beyond the retina
  - B) the longer you stare at an image, the more intense the after effect
  - C) stripes produce more intense after images than anything else
  - D) the intensity of an after image is increased when the opponent opposite colour alternated with the original image
  - E) thinking about images produces the same effect as actually seeing them
94. A new drug on the market claims to cure jet lag. Which of the following brain structures would you expect this drug to target?
- A) temporal lobe
  - B) pons
  - C) nucleus vesalius
  - D) SGN
  - E) JND
95. According to lecture, daydreaming can produce which of the following effects?
- A) decrease in arousal level
  - B) mood becomes more negative
  - C) allows for a safety valve
  - D) increase in blood pressure
  - E) poor problem solving skills

96. In an effort to cure a patient's fear of flying, Dr. Khan instructs him to immediately spend 10 hours a day on a airplane. Dr. Khan has used which of the following techniques?
- A) implosion
  - B) aversive conditioning
  - C) systematic desensitization
  - D) counter conditioning
  - E) flooding
97. If you were treating a patient for depression, which of the following would be the **worst** thing you could do to help the patient?
- A) increase perceived control
  - B) remove all contingencies
  - C) initiate pet therapy
  - D) make outcomes more predictable
  - E) all of the above will make the patient worse
98. If you were trying to definitely diagnose a case of Alzheimer's Disease, what would you look for on autopsy?
- A) nerve degeneration in the acetylcholine tracts
  - B) destruction of GABA receptors
  - C) a build up of aluminum
  - D) a greater amount of cortical tissue compared to normal
  - E) an overactive immune system
99. According to lecture, eyewitness identification can be biased by
- A) false retrieval cues
  - B) expectations
  - C) decay
  - D) mood congruity
  - E) A and B above
100. What letters go with the number 4 on a telephone dial?
- A) JKL
  - B) GHI
  - C) DEF
  - D) D
  - E) There are letters on a telephone dial

*Have a very happy holiday session and best of luck on all your exams*

# SECTION 002



91. Which of the following statements about rods vs. cones is FALSE?

- A) Rods are more numerous in the periphery; cones are more numerous in the fovea.
- B) Many rods converge on one retinal ganglion cell; few cones converge on one retinal ganglion cell.
- C) Rods are not very sensitive in low light; cones are highly sensitive in low light.
- D) Rods cannot support color vision; three types of cones support color vision.
- E) The rod system has poor resolution (low acuity); the cone system has good resolution (high acuity).

92. During the middle of a movie, the manager rushes up to an usher and asks him to enter the theater and pass a note to "the lady in the last row that is wearing a orange dress." The usher enters the dark theater, and looks around for a while, but has great difficulty identifying the lady. This is because he is having to rely mainly on:

- A) cone vision
- B) rod vision
- C) ganglion cell vision
- D) holistic vision
- E) none of the above

93. Lucy watches a musician on stage holding a guitar. She notices that the guitar typically hides the musician's midsection and part of the left arm, but that we ignore the gaps in the contour of the musician's body and perceive it as a complete form. This illustrates the Gestalt principle of

- A) reversible figures
- B) irreversible figures
- C) similarity
- D) closure
- E) proximity

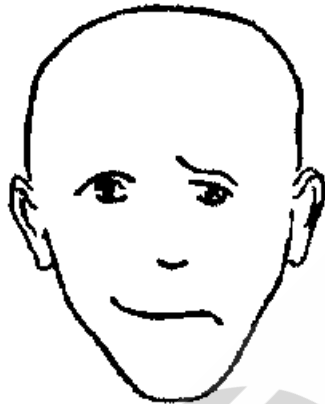
94. Jacob suffered a stroke that resulted in permanent damage to his occipital and temporal lobes. If shown a picture of a chair, Jacob could draw a recognizable chair, but would be unable to say what he had drawn. Jacob most likely suffers from:

- A) visual object agnosia
- B) prosopagnosia
- C) temporal lobe amnesia
- D) blindsight
- E) Balint's syndrome

95. The neurons near the proximal end of the basilar membrane are firing rapidly, while other neurons on the membrane are barely firing. The person perceives:

- A) a low-pitched sound
- B) a high-pitched sound
- C) a combination of tones
- D) no sound
- E) none of the above

96. You are testing a split brain patient. The patient is looking at the middle of the screen when the face shown is briefly flashed up in the centre.



You ask the patient to point with their left hand to one of three targets: (A) or (B) or (C) to indicate what he saw. What will he do?

- A) Point to (A)
- B) Point to (B)
- C) Point to (C)
- D) Point to both (A) and (B)
- E) Say "I don't know"

97. On the first trial of a psychology experiment, Emma is presented with two identical auditory tones. On subsequent trials, the intensity of the second tone is slightly increased or decreased, and Emma is asked to report the first time they don't sound identical. The researcher wants to determine Emma's:

- A) absolute threshold
- B) unbiased sensitivity
- C) biased sensitivity
- D) response bias
- E) difference threshold

98. Suppose a drug addict usually takes his fix in an alley. One day the police are watching the alley, and the addict takes his fix in a phone booth. He dies. Why?

- A) he had become habituated to the stimuli in the alley but not to those in the phone booth
- B) stimuli in the alley that had become conditioned stimuli for physiological responses that counteract the drug's effect were absent in the phone booth
- C) repeated use of the drug had sensitized him to it
- D) unconditioned stimuli in the phone booth produced physiological responses that inhibited the drug's effect
- E) none of the above

99. Alex has come to realize that simply trying to memorize terms that he must remember for his psychology exam is not very helpful. However, when he attempts to understand the meaning behind the concepts, he is better able to remember them. Alex is using \_\_\_\_\_:
- A) rote repetition
  - B) elaboration
  - C) maintenance rehearsal
  - D) divided attention
  - E) bottom-up processing
100. In a digit span test, Amanda was able to recall the 12 individual numbers 195119521953 by grouping the digits together to form higher-order units. Her technique for remembering the numbers as three years 1951, 1952, 1953 rather than 12 individual digits is called:
- A) hierarchical organization
  - B) priming
  - C) procedure memory
  - D) declarative memory
  - E) chunking



# SECTION 3 & 5



CSSA  
CHINESE  
STUDENTS & SCHOLARS  
ASSOCIATION  
中国学生学者联谊会

91. While exploring the surface of a newly discovered planet, Spock identifies a new form of life. While examining the visual system of this new species, Spock determines that the creature only has cone photoreceptors in the retina, there are no rods. Assuming that these cones and the rest of the visual system function in the same manner as the human visual system, you would expect that this species:
- A) has very poor visual acuity in bright light conditions.
  - B) can only perceive black, white, and shades of grey.
  - C) has color vision in bright light conditions.
  - D) has excellent vision in conditions of complete darkness.
  - E) Both B) and D) above.
92. The phenomenon of phantom limb pain supports the importance of \_\_\_\_\_ in the perception of pain, as the individual experiences pain in the absence of \_\_\_\_\_.
- A) pre-existing brain circuitry; sensory receptors
  - B) sensory receptors; pre-existing brain circuitry
  - C) cultural factors; pre-existing brain circuitry
  - D) sensory receptors; an occipital cortex
  - E) none of the above
93. Consider Richard Bucke's theory of the "psychogenesis of man" (i.e. the theory of evolution of human consciousness). According to Bucke's theory, which of the following statements is/are true?
- A) Simple consciousness begins to develop at about three to four years of age.
  - B) Self consciousness is nearly universal in the human race (i.e. almost all humans are expected to develop this level of conscious awareness in their lifetime).
  - C) Self consciousness is common in most animal species.
  - D) Self consciousness develops within the first 3-4 days of life.
  - E) All of the above.
94. Considering the research findings that were discussed in the lecture, which of the following is/are true regarding the causes of alcoholism?
- A) Research findings suggest that alcoholism has a genetic component because identical twins have a higher concordance rate of alcoholism than fraternal twins.
  - B) Researchers have identified a D2 Dopamine receptor gene that is thought to contribute to the development of alcoholism, but these findings are currently controversial.
  - C) Researchers have found that, compared to children of non-alcoholics, children of alcoholics require higher amounts of alcohol to produce the same intoxication effects.
  - D) All of the above.
  - E) None of the above.
95. Which of the following capacities is/are preserved (i.e. functioning normally) during a coma?
- A) motility
  - B) sensation
  - C) consciousness

96. Randy has always loved shrimp, but one night after eating shrimp, he developed food poisoning and became violently ill. Now Randy refuses to eat shrimp, because the very sight of shrimp makes him nauseated. In this case, shrimp has become:
- A) a conditioned stimulus  
B) positively reinforced  
C) a conditioned response  
D) an unconditioned response  
E) negatively reinforced
97. Sam seeks out treatment from a psychologist because of her addiction to gambling. Sam explains that she is distressed because she has spent thousands of dollars on playing the slot machines. Her psychologist explains that many people have a difficult time eliminating their gambling behavior because:
- A) gambling develops through one trial learning.  
B) gambling is reinforced through a variable ratio schedule of reinforcement.  
C) gambling is reinforced through a fixed interval schedule of reinforcement.  
D) gambling is reinforced through a fixed ratio schedule of reinforcement  
L) gambling is a primary reinforcer.
98. Consider the information that was discussed in the lecture on trauma and memory distortions. Which of the following have researchers (such as Freyd, 1996) suggested are associated with the development of amnesia/dissociation following a severe trauma?
- A) a trauma that has a deliberate human cause  
B) a trauma that occurs early in childhood  
C) a trauma that is repetitive in nature (i.e. occurs many times)  
D) a trauma that is surrounded by denial and secrecy  
E) all of the above.
99. Consider the patient, H.M. who was discussed in lecture. At the age of 29, H.M. had surgery to control his epilepsy, which severely damaged his hippocampus. As a result of this surgery, H.M.:
- A) could no longer recall incidents from his teenage years.  
B) was no longer able to encode any new information or store it in long term memory.  
C) had severely impaired short term memory.  
D) could no longer remember his identity.  
E) Both A) and D) above.
100. Consider the case study of the patient who was discussed in class that had developed an unusual paraphilia. In his case, arousal had become associated through classical conditioning with which of the following objects?
- A) lightning      B) roller coasters      C) rubber pants      D) feathers      E) corvettes

# SECTION 4



91. In Operant Conditioning, "negative" generally means:
- A) something bad
  - B) the removal of something
  - C) the presentation of something bad
  - D) avoidance learning
  - E) punishment
92. In a Skinner box, if the rat presses the lever when the red light is on, it will get food. If the lever is pressed when the red light is off, the rat will not get food. In this situation, the red light is the:
- A) discriminative stimulus
  - B) CS
  - C) UCS
  - D) consequence
  - E) reinforcer
93. The jellybean tasting in class was to demonstrate how:
- A) sweet is sensed mostly on the tip of the tongue
  - B) some flavours are not sensed as well as others when they are artificial
  - C) the sense of smell is necessary to experience flavour
  - D) there is a fifth taste called "umami"
  - E) the colour of a substance influences its perception of taste
94. The Pacinian Corpuscle is involved in the perception of:
- A) smell
  - B) taste
  - C) pain
  - D) temperature
  - E) pressure
95. Using a cell phone while driving may pose a problem under difficult driving conditions because:
- A) the cognitive resources required to complete both of these tasks can exceed the maximum capacity available
  - B) driving is automatic and that affects the resources required
  - C) difficult driving leaves fewer spare resources for a second task
  - D) the cell phone call requires more resources than driving
  - E) A & C
96. The relationship between the activity of the neurons in the suprachiasmatic nucleus (SCN) and secretion of melatonin by the pineal gland can be described as inverse because:
- A) the SCN is located in front of the pineal gland
  - B) melatonin levels are constant
  - C) increased activity in the SCN inhibits melatonin secretion
  - D) the secretion of melatonin governs the activity in the SCN
  - E) none of the above

97. In class we saw a demonstration of how a university student learned to salivate to a university logo. This occurred because:
- A) pizza served as the CS
  - B) the CR is the same as the UCR
  - C) the logo (CS) was repeatedly presented with a pizza (UCS)
  - D) pizza served as the reinforcer
  - E) it followed the principles of higher-order conditioning
98. Caffeine is an antagonistic substance because:
- A) it binds with adenosine receptor sites, blocking adenosine from binding and activating the site
  - B) it activates adenosine binding sites, causing us to be stimulated
  - C) it blocks the reuptake of adenosine, making us more alert
  - D) it impairs the neurons ability to release adenosine
  - E) one of the above
99. Addiction is generally classified as being comprised of what two phenomena?
- A) Abuse & Intoxication
  - B) Use & Tolerance
  - C) Metabolic Tolerance & Acute Tolerance
  - D) Withdrawal & Tolerance
  - E) Intoxication & Withdrawal
100. Which of the following is NOT associated with agonistic drugs?
- A) Binding
  - B) Reuptake
  - C) Synthesis
  - D) Leakage
  - E) Release