

(每答對一題得 1.33 分)

1. The field of psychology is defined as the
 - a. scientific study of behavior and mental processes.
 - b. study of all mental activities.
 - c. methodological analysis of behavior.
 - d. observational record of behaviors.
2. Psychology is considered to be a science primarily because
 - a. it attempts to understand mental and behavioral processes.
 - b. it utilizes the scientific method to study mental and behavioral processes.
 - c. its intellectual roots are in philosophy.
 - d. its research findings are understood only by intelligent people.
3. In the experimental method, only the _____ variable is manipulated, while the _____ variable is observed by the experimenter.
 - a. independent; dependent
 - b. dependent; independent
 - c. quantitative; qualitative
 - d. qualitative; quantitative
4. To determine if male or female substitute 替代 teachers are regarded more favorably in a high school classroom, you design an experiment in which the same class of seniors is exposed to 呈現 two substitutes on succeeding days, one male and one female, and is then asked to rate each teacher on an evaluation scale. The independent variable would be the
 - a. gender of the teacher.
 - b. day the class met.
 - c. ratings on the evaluation scale.
 - d. fact that it's a senior class, not a junior class.
5. If, in an experiment, the manipulation of one variable is found to influence a second variable, we can say that second variable is _____ the first variable.
 - a. a function of
 - b. a cause of
 - c. unrelated to
 - d. not correlated with
6. Sensation can be defined as the
 - a. process of converting physical energy into neural energy. 轉換
 - b. detection of the external stimuli around us.
 - c. process of organizing external stimuli into meaningful concept.
 - d. mental process necessary to locate and identify an external stimulus.
7. The scientific methods used to discover relationships between the physical 物理向變 dimensions of stimuli and the psychological experience which results are referred to as
 - a. psychophysical methods.
 - b. perceptual methods.
 - c. psychophysiological method.
 - d. Weber's methods.
8. A researcher asks you to compare the temperature of water in two different containers 容器 to determine your
 - a. absolute thresholds.
 - b. psychophysical function.
 - c. signal detection capacities.
 - d. difference threshold.
9. The j.n.d. is the largest for which of the following sensory systems?
 - a. smell
 - b. light brightness
 - c. tone loudness
 - d. The constant is the same for all sensory systems.
10. The psychological experience of a sensory event occurs in the
 - a. spinal cord.
 - b. receptors of the sense organ.
 - c. brain area which represents the sense.
 - d. sense organ itself.
11. If someone shines 閃 a bright light in your eyes, how do the photoreceptors 感光細胞 tell your brain that the intensity of the light has just increased?
 - a. the location of the neurons firing.
 - b. the rate of neural firing and the number of neurons firing.
 - c. the size of the neural impulse.
 - d. specific neural energies.
12. According to the idea of specific nerve energies
 - a. the neural pathways for the various senses originate in different receptors, but terminate 受納器 in the same place in the cerebral cortex. 結束
 - b. neural messages for the various senses are all carried to the brain by way of the same set of neural fibers.
 - c. the neural pathways for various senses originate at different receptors and

- terminate on different places in the brain.
- d. transduction of sensory experiences is accomplished differently by each set of receptor cells.
13. In the visual system, transduction takes place in the 傳輸
- a. ganglion cells.
 - b. optic nerve.
 - c. blind spot.
 - d. rods and cones.
14. Transduction in the visual system involves
- a. the movement of fluids.
 - b. the movement of hair cells.
 - c. chemical reactions.
 - d. mechanical movement of the receptors.
15. Visual information is carried to the brain via the 透過
- a. optic nerve.
 - b. retina.
 - c. photoreceptor cells.
 - d. cornea.
16. The process of light adaptation
- a. occurs in the rod first, then the cones.
 - b. takes longer for the rods.
 - c. is complete in about one minutes.
 - d. increases in length as time in the dark increases.
17. A person who cannot discriminate at all among different wavelength of light is desired as
- a. a monochromat
 - b. a dichromat
 - c. color anomalous
 - d. rod-deficient
18. The most recent theory of color vision involves
- a. the opponent process theory only.
 - b. the trichromatic theory only.
 - c. both trichromatic and opponent process theories.
 - d. a third color theory which specifies that all color information is processed at higher cortical levels.
19. After sound waves pass through the auditory canal, they reach the
- a. eardrum.
 - b. middle ear.
 - c. tunnel of Corti.
 - d. oval window.
20. Auditory hair cells are located
- a. within the cochlea.
 - b. within the auditory nerve.
 - c. along the inner membrane of the eardrum.
 - d. within the semicircular canals.
21. We are able to localize sound primarily because of
- a. pitch differences between sounds at each ear.
 - b. intensity differences between sounds at each ear.
 - c. different rate of vibration of the basilar membrane in each ear.
 - d. pure tone differences between sounds at each ear.
22. Place theory does not adequately explain our ability to detect
- a. very low frequency sounds.
 - b. very high frequency sounds.
 - c. sounds of moderate frequencies.
 - d. small differences in frequencies.
23. If we electrically stimulate the neurons in your periaqueductal gray (PAG) area, you would
- a. not perceive heat
 - b. have difficult hearing
 - c. have visual difficulties
 - d. not feel pain
24. Newborn humans show a preference for looking at faces. This illustrates that babies
- a. recognize other humans.
 - b. immediately recognize their parents.
 - c. prefer curved lines, edges, and complexity.
 - d. prefer straight lines.
25. When Ethan discovers that a sheep is not A dog and creates a "sheep schema", he is demonstrating the process Piaget 展現 called
- a. conversation.
 - b. operational thinking.
 - c. accommodation.

- d. assimilation.
26. If the ball a child is playing with rolls under a chair (out of sight), the 5-month-old child probably will not look for it. Piaget believed that this is because the child
- cannot focus his eyes together on the ball.
 - cannot crawl.
 - cannot understand the concept of round; therefore understand that the ball rolled away.
 - has not developed object permanence.
27. When presented with Piaget's pendulum 擺錘 problem, Jimmie first lengthens the string and adds more weight, then he shortens the string and adds even more weight. Jimmie is likely to be in the _____ stage.
- sensorimotor
 - preoperational
 - concrete operational
 - formal operational
28. Mood-related differences in personality seen very early in infancy are called
- fussiness.
 - temperament.
 - mood swings.
 - crises.
29. The appearance of the distress over 沮喪 separation from the caregiver 照顧者
- seems to rely heavily on the caregiving practices of the care giver.
 - may be the result of the infant's improved memory capacities.
 - is an early indicator of a disturbed relationship between the infant and the caregiver.
 - only occurs in infants who have A history of long separations from their caregivers.
30. A neural impulse that enters A neuron usually is first conducted to the cell body by _____ that neurons's _____
- dendrites.
 - axon.
 - axonic fibers.
 - collaterals.
31. The speed of the action potential is dependent upon the
- length of the neuron.
 - diameter of the axon and whether the axon is myelinated.
 - length of the axon and whether it is myelinated.
 - strength of the initial nerve impulse.
32. As A light is flashed more and more 閃 brightly, the sizes of the action potentials of the neurons involved
- increase.
 - decrease.
 - first increase and then decrease.
 - remain the same.
33. The outer layer of the cerebrum (the cortex) appeared to be gray in color because it is mostly composed of _____; whereas the inside of the cerebrum appeared to be white because it is mostly composed of
- glial cells; myelinated fibers.
 - myelinated axons; unmyelinated nerve cells.
 - cell bodies and unmyelinated nerve fibers; myelinated axons.
 - myelinated axons; cell bodies and unmyelinated nerve fibers.
34. _____ are the two main activities involved in consciousness.
- Wakefulness and dreaming
 - Monitoring and controlling
 - Thinking and problem solving
 - Recalling and repressing
35. After you have learned to ride a bicycle, you rarely have to think about maintaining your balance, pedalling, 踩脚踏 and steering simultaneously while you are riding. This memories for bicycling are said to be
- repressed.
 - dissociated.
 - unconscious.
 - preconscious.
36. Sleep tends to become _____ as the night wears on.
- deeper
 - lighter

- c. characterized by less REM sleep
d. less susceptible to external stimuli
37. Which of the following statements about sleep is true?
a. The order and depth of sleep stages varies greatly across individuals.
b. The pattern of sleep cycles varies with age.
c. The sleeper gradually moves from wakefulness to deep sleep after the first two hours of sleep.
d. All of the above are true.
38. One of the main reasons people die in their sleep is that they probably fail to terminate a period of
a. REM
b. narcolepsy
c. insomnia
d. apnea
39. Jill had a dream about laying on the beach, and her psychoanalyst told her that this symbolized her sense of insignificance. In this example the beach was the dream's _____ and insignificance is its
a. manifest content; latent content.
b. latent content; manifest content.
c. manifest content; wish fulfillment.
d. covert symbolism; overt symbolism.
40. Hilgard discovered a double train of thought, called _____, operating in some individuals under the influence of hypnosis.
a. hypnotic suggestibility
b. the hidden observer
c. the lucid dream state
d. hypnotic duality
41. Alcohol acts as a _____ to the central nervous system.
a. stimulant
b. depressant
c. narcotic
d. hallucination
42. _____ imitates the body's natural pain-killers, endorphins, and can reduce their level in the body with extended use.
- a. Any of the opiates
b. LSD
c. Cocaine
d. PCP
43. Heavy cocaine usage may be accompanied by
a. sedation if the dosages are high enough.
b. relatively few negative side-effects.
c. hallucinations of bugs crawling under the skin.
d. memory loss.
44. For Pavlov's dogs, salivation to the meat powder was the _____ and salivation to the light was the
a. UCS; CS
b. CS; UCS
c. UCS; UCR
d. UCR; CR
45. When you discontinue the unconditioned stimulus in classical conditioning, what are you most likely to observe?
a. extinction
b. a gradient of generalization
c. reinforcement
d. trace conditioning
46. Little Tessa learned to answer the front door when she hears the "ding-dong" sound. At Grandma's house, the doorbell ring "dong-dong" and Tessa again runs to the door. Tessa's behavior illustrates
a. extinction
b. generalization
c. discrimination
d. second-order conditioning
47. The cognitive perspective on classical conditioning suggests that when the CS is repeatedly paired with the UCS, the learner
a. realizes that his behavior controls the appearance of the CS.
b. knows that the appearance of the CS causes the UCS to occur.
c. is learning to feel obligated to voluntarily display the CR to the CS.
d. is learning to expect the UCS when the CS is presented.

48. A cognitive psychologist might explain classical conditioning by saying that
- the predictive relationship between CS and UCS is more important than temporal contiguity for learning. 時間上接近
 - it can be explained by the frequency of pairings of CR and UCR.
 - the learner comes to understand the consequences of their behavior and thus repeats it or not.
 - learning is a passive, mechanistic process in animals.
49. The fact that rats learn to avoid food which has poisoned them when ~~下毒~~ presented with the taste of the food but not when presented with a noise that has been paired with the same food indicates that
- taste aversion is not a naturally occurring behavior for rats. 嫌惡
 - behaviorists are correct in assuming that all behaviors are learning in the same way.
 - equally strong stimuli can effectively substitute for each other in a classical conditioning situation.
 - some associations may be "built-in" or determined by an organism's genetic material.
50. When baby Jeffrey makes "goo-goo" noises, Mom and Dad appear over the edge of the crib. As a result, little ~~嬰兒~~ Jeffrey increases his noise-making. This ~~現象~~ illustrates
- classical conditioning.
 - operant conditioning.
 - shaping.
 - selectivity of associations.
51. If you want to teach your dog Annabelle to ring the doorbell with her nose, you should
- be very careful to reinforce only button-pushing responses. 增強
 - reinforce Annabelle any time anybody rings the doorbell.
 - probably use the shaping technique.
 - punish Annabelle any time she moves away from the door.
52. Richard's mother has praised him each time he said the word "please". He now says "please" each time he makes a request. The praise has acted as a(n) ~~要素~~
- unconditioned stimulus.
 - negative reinforcer.
 - conditioned reinforcer.
 - discriminative stimulus.
53. Punishment is the most useful in changing behavior if
- it provides information about alternative behaviors. 另種
 - it is very severe.
 - it is used to increase behaviors, not decrease them.
 - there is a significant delay between the behavior and the punishment.
54. In _____, a non-event, or the failure of an event to occur, is the reinforcer
- classical conditioning
 - operant conditioning
 - avoidance learning
 - escape learning
55. What is a cognitive map?
- memorized lists of street names.
 - a mental representation of an area.
 - a suddenly available mental image of the solution to a problem.
 - a particular sequence of turns and distances to travel to reach a particular point in space.
56. Although there may be different types of memory systems, each system utilizes ~~利用~~ the three basic stages of
- working store, consolidation, and ~~凝結~~ long-term store.
 - acquisition, consolidation, and ~~習得~~ forgetting.
 - storage, remembering, and forgetting.
 - encoding, storage, and retrieval.
57. In a discussion about memory, you are likely to hear the phrase "magical number seven". To what does this phrase refer?
- Items remain in working memory for about seven seconds.
 - Most adults can retain only about seven items in working memory.

- c. Only seven digits can be held in long-term memory without chunking.
d. Material may be encoded in seven different ways.
58. Why can a fast food cashier recall the last few prices of an order just rung up but not the first few?
a. Items further down the list displace earlier items in working memory.
b. She paid closer attention to the last few items.
c. She used a linear search of working memory for the last items.
d. The later items were placed in long-term memory.
59. When we engage in problem solving, information from _____ memory is transferred to _____ for conscious processing.
a. working; long-term
b. long-term; working
c. semantic; episodic
d. episodic; semantic
60. Research on working memory suggests that it has what two functions?
a. It is a storage area for memory span and retrieval.
b. It serves as a workspace for mental computations and is a way-station to LTM.
c. It serves as an area for retrieval and storage of memories.
d. All of the above are true.
61. What is the preferred code for storing verbal material in long-term memory?
a. the sound of the material
b. the meaning of the material
c. the visual appearance of material
d. seven item chunks
62. Tests of recognition are usually easier than tests of recall because
a. recognition information needs to be stored only in working memory.
b. recalled information is less easily coded semantically.
c. a recognition test provides better retrieval cues.
d. recall requires imagery, but recognition requires only semantic encoding.
63. Interference 干扰
a. occurs in both working and long-term memories.
b. slows retrieval time.
c. cannot be accounted for by the spreading activation theory of memory.
d. All of the above are true.
64. If you visited the old neighborhood where you grew up, you might recall events and other memories from many years earlier. The cues to memory stimulation here are
a. state-dependent.
b. external context.
c. internal context.
d. eidetic imagery.
65. Which of the following is the best explanation for why you would be unable to remember the correct answers if you panic during an exam?
a. Anxiety causes extraneous thoughts that interfere with retrieval.
b. You have repressed them because the test anxiety was unbearable.
c. The answers are actively blocked by the subconscious.
d. The capacity of your long-term memory has been reduced.
66. Compared with normal subjects, amnesiacs 遺忘症
a. do not improve their performance as quickly in perceptual or motor skills.
b. perform equally well on tests of explicit memory.
c. perform equally well on tests of implicit memory.
d. All of the above are true.
67. Motivational processes determine the:
a. direction of goal-directed behavior;
b. intensity of goal-directed behavior;
c. conscious experience of goal-directed behavior;
d. both a and b.

68. In the psychoanalytic view, the largest portion of the human mind is

- a. conscious
- b. preconscious
- c. unconscious
- d. ego

69. Gender identity is defined: 性別認同

- a) by the biological structures that distinguish males from females; 區別
- b) as the degree to which one regards 認為 oneself as male or female;
- c) by the degree to which a person is sexually attracted to persons of the opposite and/ or some sex;
- d) as the influence of androgens upon 性荷爾蒙 anatomy and brain cells. 解剖結構 要

70. Hormonal changes that distinguish males and females psychologically and physically begin during:

- a) the early postnatal period; (出生後)
- b) puberty; (青春期)
- c) postpuberty; (青春期後)
- d) early adulthood.

71. Drive is to internal factors as 驅動力 incentive is to: a) internal factors; b) 誘因 external events; c) need states; d) sex and aggression.

72. The "common currency" for the 通貨幣值 value of many different primary and 初級及次級增強 secondary reinforcers appears to be translated in activity of the: a) 轉換成 hypothalamus; b) brain stem; c) mesolimbic dopamine system; d) cerebral cortex (in conscious process).

73. Food preferences are a function of: a) individual leaning processes; b) social

learning mechanisms; c) flavor of a particular food owing the evolutionary history of the species; d) all of the above.

74. The main "fuel" used by brain 燃料 neurons is: a) ADH; b) renin; c) glucose; d) angiotensin.

75. Which of the following is true with respect to psychological factors in overeating? a) Obese as well as normal-weight people eat more in high-anxiety situations. b) The eating behavior of restrained eaters is closer to that of obese people than to that of unrestrained eaters. c) All obese people are overly sensitive to external hunger cues. d) All people with high externality regarding to hunger cues become obese.

試科目	心理及教育統計學	系別	心理學系	考試時間	7月5日上午第(四)期 星期六
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若回答問題時需要查表，請說明查表方式，(例如：用 $F_{1,48;.95}$ 表示：查 F 分配表， $\nu_1=1$ ， $\nu_2=48$ ，百分點為 95)。

一、全校學生參加兩次考試，考試成績的平均數、變異數及相關摘要如下：

$$\begin{array}{lll} \text{第一次考試} & \bar{X}_1 = 75 & S_{X_1}^2 = 64 \\ \text{第二次考試} & \bar{X}_2 = 60 & S_{X_2}^2 = 100 \end{array} \quad r_{12} = .80$$

(A) (10 分) 設 $D = X_1 - X_2$ (兩次考試的差異分數)，請計算 S_D^2 。

(B) (10 分) 為了某種原因，將第二次考試成績進行線性轉換為 Y ， $Y = 50 + 0.5X_2$ ，請計算 Y 的變異數 (S_Y^2)。

(C) (15 分) 該校某生第一次考試成績的標準分數 (Z_{X_1}) 為 1.50，請用區間估計

該生的 Y 成績，使該區間有 95% 的機會包含該生的正確 Y 成績。

二、(15 分) 研究者欲以丟 6 次銅幣的實驗，來考驗一個銅幣出現正面與反面的機率是否相同，並決定：當 6 次皆出現正面時，則判斷該骰子並非公平 (單側考驗)。如果一個銅幣由於製造因素，實際出現正面的機率為 0.9，請問採用上述檢查方式時，犯第二類錯誤 (β) 的機率為何？

三、(15 分) 公平骰子六面出現的機會皆相同，研究者丟一個骰子 60 次，所得點數的分配如下表：

點數	1	2	3	4	5	6
次數	7	4	12	9	12	16

$N=60$

請問這個骰子是否為公平的骰子？($\alpha = .05$)

四、 A 、 B 兩個受試者間變項，形成四種實驗處理 (2×2)，40 名受試隨機分派至各個實驗處理 ($n=10$)，受試者在各細格的平均數與標準差 (括號內；不偏差估計值) 摘要如下表：

	B_1	B_2
A_1	10.0 (2.0)	6.0 (1.8)
A_2	7.0 (2.1)	5.0 (1.9)

請計算 (A) (15 分) MS_w 。 (B) (10 分) SS_A 。 (C) (10 分) SS_{AXB} 。