

一、選擇題：請選出一項最佳的答案（每題2分，共50分）

- ____ 1. Which of these is NOT among the several shortcomings of interviews or questionnaires?
- Subjects may lie about their own actions.
 - Young preschoolers might misunderstand the questions.
 - Results may be inconsistent for children and parents.
 - Self-report techniques generate a lot of data.
- ____ 2. A correlation coefficient's negative sign indicates that
- the correlation is significant (real).
 - the two factors are unrelated.
 - the first factor causes the second factor to change.
 - as one variable increases, the other variable decreases.
- ____ 3. Information-processing theorists assert that the main developmental change as the child matures is
- progression to more advanced stages.
 - continuous improvement in efficiency of processing.
 - qualitative changes in how instincts are expressed.
 - improved social cooperation with peers.
- ____ 4. According to ethologist John Bowlby, the crying of infants is adaptive because crying
- creates frustration in caregivers.
 - helps infants develop better coping skills.
 - aids in lung development.
 - ensures that basic needs are met and promotes the development of emotional attachments.
- ____ 5. For traits that are determined by single pairs of genes, recessive traits occur on population phenotypes _____ than those of dominant traits.
- more often
 - equally often
 - less often
 - with weaker strength
- ____ 6. The highest intellectual performance is evident when
- children with low potential have enriched environments.
 - children with moderate potential have average environments.
 - children with moderate potential have enriched environments.
 - children with high potential have enriched environments.
- ____ 7. The drug diethylstilbestrol (DES) generated unique teratogenic effects because the abnormalities
- affected the family's house pets, not the humans.
 - did not appear in the child until adolescence.
 - affected sons but not daughters.
 - improved the child's intelligence.
- ____ 8. Even when drugs fail to induce physical deformities, they may have harmful consequences by
- producing neonatal behaviors that reduce parental bonding with the child.
 - detering the infant's enrollment in daycare.
 - triggering attentional craving, with sibling neglect.
 - preventing the natural miscarriage of defective embryos.

9. Chromosomal abnormalities and miscarriage of the unborn child are most likely for
- teenage mothers.
 - mothers in their 20s.
 - mothers over the age of 35.
 - pregnant fathers.
10. A doctor tells a parent, "Your baby is infected with otitis media, and her _____ will be affected."
- hearing
 - movements of large muscles
 - sensitivity to touch stimuli
 - vision, especially movement perception,
11. Which of the infant's sensory modalities is not yet functioning at birth?
- Taste.
 - Skin pressure.
 - Skin warmth.
 - All are functioning.
12. Angelica picked up toys in her room as well as in her messy brother's room. Her parents then buy her a doll as a special present. This illustrates
- positive reinforcement.
 - positive punishment.
 - negative punishment.
 - negative reinforcement.
13. Left/right hand preferences can be identified in a child as early as the age of _____ years.
- one
 - two
 - four
 - six
14. A visual sensory store is like a(n)
- jiggling movement of the eye when the person gets dizzy.
 - itchiness felt when an insect crawls on the skin.
 - brief persistence of an image.
 - echo in the ear.
15. At dinner, Bonzo says, "Let me tell you about the two adventures I had on the way to work this morning." Bonzo's story/like narrative illustrates
- working memory.
 - strategic memory.
 - autobiographical memory.
 - recall from a sensory register.
16. Some of toddlers' persistent mispronunciations are similar across languages. This implies that these errors
- are caused by inadequate parental instruction.
 - result from immature development of the vocal tract.
 - may be due to excessive sugar/carbohydrates in the diet.
 - reflect the child's disinterest in language at this age.
17. Belinda is eight months old. She turns away and starts crying when a stranger approaches her at the grocery store. This reaction would
- be unusual in a child of that age.
 - be evidence that Belinda was insecurely attached.
 - be considered a typical response to a stranger for a child of that age (but not necessarily a universal response).
 - simply indicate that Belinda is tired or hungry.

- ____ 18. Social experiences with peers can indirectly contribute to the development of person perception in all of the following ways EXCEPT
- providing information about what others are like.
 - fostering the development of role-taking skills.
 - providing an awareness of the motives and causes of the behavior of others.
 - increasing interest in romantic relationships.
- ____ 19. Getting a gender-inappropriate gift will be most stressful for a child who is
- being raised by cohabiting gay or lesbian adults.
 - a preschooler.
 - of elementary school age.
 - near puberty.
- ____ 20. Children who practice gender segregation
- socially regard the other sex as an out-group.
 - segregate themselves, despite knowledge that it is wrong.
 - merely respond to parental encouragement to do it.
 - respond unconsciously to innate instincts to segregate.
- ____ 21. "Moral socialization" refers to the child's
- acceptance of socialist economic theory.
 - refusal to join delinquents' gangs.
 - learning of ethical principles.
 - avoidance of love withdrawal.
- ____ 22. In Dodge's social information-processing theory, the first step in an aggressive encounter is to
- enact a response.
 - encode and interpret social cues.
 - generate problem-solving strategies.
 - evaluate the likely effectiveness of response strategies.
- ____ 23. Longitudinal studies around the world relating to Kohlberg's moral reasoning theory have reported that
- stage sequence varies across religions.
 - stage sequence is highly inconsistent.
 - stages are an invariant developmental sequence.
 - stages are invariant yet are inaccurate.
- ____ 24. Whose theoretical perspective is especially compatible with the systems approach to families?
- Piaget's cognitivism.
 - Freud's psychoanalysis.
 - Vygotsky's socioculturalism
 - Bronfenbrenner's ecological systems.
- ____ 25. Voltaire, a French philosopher, wrote, "To live well, you must live unseen." Voltaire would argue that the _____ child's situation is better than most would realize.
- neglected
 - controversial
 - popular
 - rejected

二、名詞解釋：(每題 5 分)

1. Counterfactual thinking
2. Jigsaw classroom
3. Need for cognition
4. Minority influence
5. Public goods dilemma

三、簡答題：

1. 請簡述 Robert Sternberg (1986)所提出的 triangular theory of love，其三項主要成分與八類基本類型。(15 分)
2. 請簡述心情 (mood) 與助人行為 (helping behavior) 之間的關係。(10 分)

問答題：

1. 何謂多特質-多方法取向 (multitrait-multimethod approach) ? (10分)
2. 何謂基礎率 (base rate ; BR)、挑選率 (selection ratio ; BR) ? 這兩者與效度 (validity) 如何影響決策的品質 ? (10分)
3. 何謂 Norm-referenced test 及 Criterion-referenced test ? 如何設定標準 (setting standards) 和截斷分數 (cutoffs) ? (10分)
4. Spearman (1904) 提出去弱校正 (correction for attenuation) 公式為 $r'_{xy} = r_{xy} / \sqrt{r_{xx} \times r_{yy}}$ ，其目的為何？經校正後的信度會提高 or 降低？這公式有什麼問題？ (10分)
5. 請說明古典測驗理論 (classical test theory) 和試題反應理論 (item response theory) 對試題分析 (item analysis) 的看法有何差異？ (10分)
6. 何謂變異數分析 (Analysis of Variance, ANOVA)? 為何變異數分析都是用 F 檢定，而不用 Z 分數檢定或 t 檢定？當何種條件下，F 檢定與 t 檢定會存在某種函數的關係，真有這種情形嗎？若真的有，該條件為何？ (15分)
7. 何謂標準差 (Standard deviation) 與標準誤 (Standard error)? 兩者的相同與相異點各為何？ (20分)
8. 請寫出二因子 (A 與 B) 變異數分析的所有變異來源、以及請寫出當針對主要的變異來源進行 F 檢定時，每一個 F 檢定的分母變項各為何。 (15分)
 - a. 當此二因子均為固定變項 (fixed variables)，且二者均為受試者間變項 (between-subject variables) 時。 (7分)
 - b. 當此二因子均為固定變項 (fixed variables)，且二者均為受試者內變項 (within-subject variables) 時。 (8分)

一、解釋名詞 (每題 4 分，共 40 分)

- (1). Substance dependence
- (2). Asociality
- (3). Socratic questioning
- (4). Interoceptive conditioning
- (5). Apraxia
- (6). Psychopathy
- (7). Anorexia nervosa
- (8). Negative triad (Beck, 1967)
- (9). General adaptation syndrome (GAS)
- (10). Behavioral activation (BA) therapy

二、申論題 (每題 15 分，共 60 分)

- (1). Please use Gerald Patterson's coercion theory to explain the coercive parent-child interaction.
- (2). Please use dopamine theory to explain the etiology of schizophrenia.
- (3). 請以認知與行為觀點，說明強迫疾患 (obsessive-compulsive disorder; OCD) 的病理成因？
- (4). 請以 Seligman (1974) 所提出的「習得無助理論 (learned helplessness theory)」, Peterson 等人 (1993) 所提出的歸因型態 (attributional style) 理論、以及 Abramson (1989) 所提出的無望感理論 (hopelessness theory) 說明憂鬱的成因？

Part I. 45%

1. _____ is a type of variable that is left uncontrolled in an experiment, but could contribute to difference in performance. Thus it makes interpretation of the experiment results difficult.
 - a. Independent variable
 - b. Confounding variable
 - c. Controlled variable
 - d. Dependent variable
2. _____ consists of explanatory principles for the phenomenon of interest.
 - a. correlational studies
 - b. dependent variables
 - c. hypotheses
 - d. theories
3. What kind of memory seems to not involve the hippocampus?
 - a. declarative memory
 - b. short-term memory
 - c. procedural memory
 - d. long-term memory
4. Which of the following best describes the relationship between inspection time and intelligence?
 - a. Highly intelligent people tend to increase their inspection time.
 - b. Highly intelligent people have very fast inspection times.
 - c. People with lower intelligence scores have fast inspection times.
 - d. There is no relationship between inspection time and intelligence.
5. According to Endel Tulving, if you needed to remember the name of a book that you borrowed from the library last week, what kind of memory is involved?
 - a. episodic
 - b. semantic
 - c. time-bound
 - d. working
6. Lin won a lottery 10 years ago. Yet, he still is able to recall with great detail and vividness what has happened that day. This is an example of what kind of memory?

- a. constructive
 - b. photographic
 - c. flashbulb
 - d. iconic
7. Which of the following concept suggests that images are simply a byproduct of other cognitive processes?
- a. epiphenomena
 - b. percept
 - c. construals
 - d. deductive code
8. In a computer simulation, the “if” clause includes a set of conditions that must be met in order to implement the “then” clause. What concept is involved in this example?
- a. semantic simulations
 - b. action rules
 - c. declarative procedures
 - d. production rules
9. The finding that all languages draw their basic color terms from eleven color names supports which hypothesis?
- a. categorical relativity
 - b. absolutism
 - c. linguistic relativity
 - d. linguistic universals
10. Gathering all the pieces of evidence leads us to reach a certain conclusion is _____ reasoning
- a. deductive.
 - b. inductive.
 - c. abductive.
 - d. reductive.
11. The ability to realize that two problems have the same underlying structure even though their surface features are different and to adapt the solution for one problem to another is an example of _____
- a. ill-defined problem.

- b. well-defined problem.
 - c. transfer of analogies.
 - d. transparency.
12. Which of the following tasks will produce the best long-term memory for a set of words?
- a. Deciding how many synonyms each word has
 - b. Deciding how many consonants each word has
 - c. Generating a rhyming word for each word to be remembered
 - d. Repeating the words over and over in your mind
13. Consider the following argument:
All university professors are dragons.
Mr. Lin is a university professor.
Therefore, Mr. Lin is a dragon.
This statement is both _____ and _____.
- a. valid; true
 - b. invalid; untrue
 - c. invalid; true
 - d. valid; untrue
14. The sentences, "The boy ravenously ate the pizza," and "The pizza was eaten ravenously by the boy" have the same _____ structure, but have different _____ structure.
- a. shallow; elaborative
 - b. surface; deep
 - c. elaborative; shallow
 - d. deep; surface
15. _____ grammar specifies the alleged correct ways of using structures of the written and spoken language.
- a. Descriptive
 - b. Inferential
 - c. Prescriptive
 - d. Logistical

Part II. 5%

Give an example of an interaction between top-down and bottom-up processes.

Part III 50%

1. 閱讀下面這篇摘要之後，回答後面的問題

Numerous studies suggest that attention-deficit/hyperactivity disorder (ADHD) is caused by deficits in dopaminergic systems. Furthermore, dysfunctions of prefrontal cortex can impair inhibitory controls of ADHD patients, resulting in their impulsive behaviors. Researchers also find that rats with lesions in the orbitofrontal cortex show deficits in the reversal learning of attentional set-shifting task (ASST), a behavioral test frequently used in human studies to assess the inhibition system. However, the role of orbitofrontal dopamine system in the mechanism responsible for the dysfunctions of inhibitory controls in ADHD patients and animal models remains unknown. In the present study, we manipulated orbitofrontal dopamine activities of spontaneously hypertensive rats, a widely used ADHD animal model, through intra-peritoneal injection of methylphenidate (MPH) and central infusion of haloperidol, and observed performance of animals in ASST. The results show that juvenile SHRr learned slower than Wistar controls in the first and second reversal learnings of ASST. The deficits could be removed by intra-peritoneal injections of MPH. Furthermore, central infusions of haloperidol in the orbitofrontal cortex blocked the effects of MPH. In conclusion, dopamine manipulations in orbitofrontal cortex can modulate deficits of reversal learning in SHRr, suggesting a possible involvement of the orbitofrontal dopamine system in the pathology of ADHD.

根據這篇摘要的說法，

- (a) 學者認為那一種大腦認知功能異常會造成注意力不足過動症 (ADHD) 的徵狀？ (5分)
- (b) 那一種神經傳導物質失調可能會造成注意力不足過動症？ (5分)
- (c) 在這篇摘要描述的實驗中，研究者使用了那一種藥物作為此神經傳導物質的 agonist？可以直接寫英文名稱。 (5分)
- (d) 在這篇摘要描述的實驗中，研究者使用了那一種藥物作為此神經傳導物質的 antagonist？可以直接寫英文名稱。 (5分)

2. 試申論 Long Term Potentiation (LTP) 現象和古典制約學習之間的關係 (20分)

3. 睡眠可分為那幾個階段？這些階段的腦電波圖 (EGG) 各有什麼特色？ (10分)