

招生學年度	100	招生類別	碩士班
系所班別	諮商與臨床心理學系碩士班(諮商心理學組)		
科目	心理學研究法甲		
注意事項	本考科禁止使用掌上型計算機；含測驗與統計		

※答案請寫在答案卡上。

**Instruction:** Choose the option that is closest to the true answer. Multiple answers will be marked as incorrect. No statistical tables are given in this exam. Forty items in total; 2.5 points for each item.

- Which of the following does not characterize cultural-reduced testing?
  - testing in pictorial format
  - testing to solve novel problems
  - testing not using paper-and-pencil
  - testing that requires reading
- All students in Hualien are about to be sampled as respondents in a study. The researcher decides to sample a representative list of schools from different geographical areas (e.g., north, central, or south). Next, in each of the schools, he systematically samples students of different genders in each grade. What type of sampling strategy is it?
  - simple random sampling
  - cluster sampling
  - stratified sampling
  - systematic sampling
- In which of the following cases do the critical values of  $z$  and  $t$  differ most?
  - $n = 10$
  - $n = 100$
  - $n = 1000$
  - $n = 10000$
- In hypothesis testing, which of the following statements regarding the relationship of  $\alpha$  and  $\beta$  is incorrect?
  - The lower an  $\alpha$  is set, the lower the power of the statistical test.
  - If we increase the sample size, it implies that the gap between the parameter in the null hypothesis and that in the alternative hypothesis is also increased.
  - When a researcher concludes that the null hypothesis is accepted, he needs to concern with risk of a *type II error*.
  - When we set  $\alpha$  at a certain level,  $\beta$  is also determined at the same time.
- Which of the following does not define psychological testing?
  - behavior sampling
  - wording
  - standardization
  - scoring strategy
- With a bit exceptions, a research project is typically constructed in the sequence of:
  - Methodology → Introduction → Results → Conclusions → Literature Review
  - Introduction → Literature Review → Methodology → Results → Conclusions
  - Introduction → Methodology → Results → Literature Review → Conclusions
  - Literature Review → Methodology → Introduction → Results → Conclusions
- Which of the following procedures of qualitative data analysis differs most from the other three?
  - grounded theory
  - ethnography
  - phenomenological analysis
  - narrative approach

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8. Which of the following relationships between variables is most likely to suggest a spurious relationship?
- a positive relationship between children's shoe size and their math score
  - a positive relationship between number of hours students study everyday and their grade-point average
  - a positive relationship between number of supervisions and a counselor's counseling skills
  - a negative relationship between church attendance and heart attacks
9. Which of the following can be properly regarded as statistical hypotheses?
- $\mu = 15$
  - $\rho = .5$
  - $r = 0$
  - $s = 10$
  - $\sigma = 12.5$
  - $\bar{X} = 100$
  - c, e, f
  - a, d, f
  - b, c, d
  - a, b, e
10. Thirty respondents are investigated one single psychological construct in five different methods. Then the researcher estimates the relationships among the five methods by conducting Pearson product-moment correlations among the five methods to see if various methods yield similar results. This approach leads to:
- convergent validity
  - construct validity
  - criterion-related validity
  - discriminant validity
11. Which of the following statements regarding reliability and/or validity is incorrect?
- Both are important qualities of measurement standardization.
  - Low levels of reliability are acceptable when tests are used for preliminary decisions.
  - Reliability is a function of consistency, and validity is a function of accuracy.
  - If a psychological test presents well-standardized properties in a study, one can be fully confident in the application of this test to other samples.
12. After collecting the scores of Beck Depression Inventory (BDI) of students from Dong Hwa University, a researcher wanted to know about the possible differences of BDI of freshman, sophomore, junior, and senior. Which of the following ways is most properly employed?
- analysis of variance
  - t-test
  - multiple regression
  - Pearson product-moment correlation
- 13.

	Very much	Somewhat	Neither	Somewhat	Very much
Simple	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Complex
Warm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cold
Valuable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Worthless

In the above format, a subject is asked to respond between two opposites to present his qualities or attitudes. What kind of scale is this?

- contingency table
- Bogardus social distance scale
- semantic differential
- Likert scale

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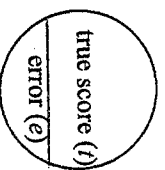
14. Choose a correct description of the following set of scores:  
2.3, 2.5, 3.5, 3.5, 5.4, 5.4, 5.4, 5.4, 6.0, 6.3, 7.0
- (1) range = 5.4  
(2)  $\bar{X}$  = 3.5  
(3) mode = 5.4  
(4) median = 3.5
15. In a standardized test where the mean score is 60 and the standard deviation is 10. Jennifer gets a z score of 1.5, Michael gets a T score of 72, and Tom obtains a raw score of 80. Who gets the highest score?
- (1) Jennifer  
(2) Michael  
(3) Tom  
(4) unknown; the information is insufficient.
16. A researcher tries to examine whether the experimental results are impacted by what happened in the lab however unrelated to the experimental treatment. He is considering the issue of:
- (1) experimental design  
(2) external validity  
(3) generalizability  
(4) internal validity
17. Which term least belongs with the other three?
- (1) dependent variable  
(2) predicted variable  
(3) independent variable  
(4) criterion variable
18. John obtains a score of 85 in a standardized test where the mean score is 100 and the standard deviation is 20. Which of the following percentile ranks is the most equivalent to his score?
- (1) 5  
(2) 15  
(3) 25  
(4) unknown; the information is insufficient.
19. Which of the following statements regarding evaluation research is incorrect?
- (1) It could be an evaluation of the outcome of a program.  
(2) It is a form of applied research.  
(3) It is mainly conducted via experimental design.  
(4) It is a research purpose rather than a specific research method.
20. A research team is testing the effect of one new drug to determine to make it marketed. Which of the following approaches is the least method to serve the purpose?
- (1) qualitative inquiry  
(2) experiment  
(3) evaluation research  
(4) census

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21. Several factors may affect the reliability of a test. Which of the following is least likely?
- (1) the knowledge base of the researcher
  - (2) the characteristics of the test itself
  - (3) the method one uses to estimate reliability
  - (4) the characteristics of those who taking the test
22. To estimate the correlation between variables Y and X with the effects of variable Z removed, one would use:
- (1) partial correlation
  - (2) simple correlation
  - (3) multiple regression
  - (4) biserial correlation
23. If raw scores are changed to z-scores, the shape of the distribution would be:
- (1) changed
  - (2) positively skewed
  - (3) unchanged
  - (4) negatively skewed
24. Edwards Personal Preference Schedule is one of:
- (1) interest tests
  - (2) aptitude tests
  - (3) personality tests
  - (4) ability tests
25. In hypothesis testing, we set a level of significance at .05. We mean that:
- (1) the degree of risk of a *type II error* is 5%.
  - (2) the probability of rejecting  $H_1$  incorrectly is 5%.
  - (3) " $\mu_1 - \mu_2 \neq 0$ " can be concluded when  $p < .05$ .
  - (4) the minimum acceptable risk we take is .05.
26. If most students study so hard for this entrance examination that they answer almost all questions on the exam accurately, the scores would be expected to be:
- (1) leptokurtic
  - (2) normally distributed
  - (3) skewed negatively
  - (4) skewed positively
27. Which of the following statements concerning psychological testing and measurement is incorrect?
- (1) One of the assumptions of measurement maintains the existence of stable individual differences.
  - (2) Psychological testing is designed to measure an individual as a whole.
  - (3) Psychological testing is used to make important decisions about individuals.
  - (4) Assigning numbers to represent a certain aspect of an individual, but one cannot be sure exactly what the specific property of this individual is.
28. Which of the following effects is least likely to be a concern in a within-subjects design?
- (1) order and sequence effects
  - (2) ceiling and floor effects
  - (3) counterbalancing effects
  - (4) experimental and control effects

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29.



observed score ( $o$ )  
 $o = t + e$

According to the above figure by classical reliability theory, which of the following relationships or statements is correct?

- (1) Reliability refers to the correlation between true score and error.
- (2)  $r_e = 0$
- (3)  $r_{rel2} < 0$
- (4) mean error of measurement  $> 0$

30. Which of the following ways could reach an estimation of construct validity?

- (1) to ask a panel of experts to judge about the adequacy of the test
- (2) to correlate first-half of a test with the second-half of the test
- (3) to manipulate experimental treatments to experimental versus control groups
- (4) to calculate internal consistency of the test

31. Which of the following sources of errors in measurement vis-à-vis the strategies of estimating test reliability is not correct?

- (1) test-retest—temporal factors
- (2) alternate forms—test content and temporal factors
- (3) split-half—test content factors
- (4) internal consistency—temporal factors

32. Which of the following is least likely to be achieved when conducting research in counseling psychology?

- (1) the threat of internal invalidity
- (2) random sampling
- (3) standardization of testings
- (4) objective research results

33. Which of the following is incorrect?

- (1) Construct cannot be measured directly.
- (2) Validity cannot be measured directly.
- (3) Content domain cannot be measured directly.
- (4) Observed score cannot be measured directly.

34. Data are collected from the same set of people at several points in time. This is called:

- (1) panel study
- (2) cohort study
- (3) cross-sectional study
- (4) field study

35. Which concept least belongs with the other three in methodology?

- (1) representativeness
- (2) generalization
- (3) thick description
- (4) statistical testing

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36. Test A measures students' personal attributes. The higher the score in Test A, the better student academic performance is expected. It indicates that Test A contains:

- (1) content validity
- (2) face validity
- (3) concurrent validity
- (4) predictive validity

37. A researcher would like to investigate how counselors of different ages who perform various approaches to therapy may cause different outcomes of therapy (diagrammed as follows). This is a:

treatments

	CBT	NT	ET
under 35			
counselor's age 35 to 50			
over 50			

- (1) multiple-baseline design
- (2) factorial design
- (3) Latin Square design
- (4) time-series design

38. Which of the following concerning qualitative interviews is incorrect?

- (1) One needs to prepare a general interview outline in advance.
- (2) The interviewer needs to direct the conversation based on the order of interview questions prepared in advance.
- (3) The interviewer talks as little as he could.
- (4) The way the interviewer asks questions is to pursue research topics and to obtain genuine conversations from the participant.

39. In which class would you expect the correlation between IQ and mid-term exam score to be the greatest?

	class		
	A	B	C
mean IQ	103	108	112
s	10	12	8

- (1) class A
- (2) class B
- (3) class C
- (4) unknown; the information is insufficient.

40. Which of the following combinations of level of item difficulty ( $p$ ) and item discrimination index ( $D$ ) for a specific item is least likely to occur?

- (1)  $p = .00$ ,  $D = .50$
- (2)  $p = .50$ ,  $D = -1.00$
- (3)  $p = .50$ ,  $D = .50$
- (4)  $p = 1.00$ ,  $D = .00$