UNSW PSYCHSOC

PSYC1111
Practice Examination
2020

1. **Charlie watched a lecture that informed him humans only use 20% of their brains, and now believes this piece of information. To which common source of information has Charlie referred?**
    a. Common sense and folk wisdom
    b. Superstition and Intuition
    c. Information from authority
    d. Information from tenacity

2. **Which of the following is an example of using the availability heuristic?**
    a. Saul believes that flying aeroplanes are dangerous because of the news article he read yesterday
    b. Saul will refer to information sources online that are more available
    c. Saul will recall information that supports the fact that flying aeroplanes is dangerous, ignoring other sources of information
    d. Saul will recall information more accurately when stimuli have been more vividly and recently encoded into his memory

3. **Which definition is incorrect?**
    a. Empiricism implies that evidence for a theory/hypothesis must be collected systematically
    b. Falsification implies that a good hypothesis must be open to being disproved
    c. Parsimony implies that simpler explanations are favourable
    d. Testability implies that a theory/hypothesis can be accepted if evidence favours it

4. **Jeff conducts an experiment; he recruits elderly females and allocates them to different groups based on their tea preferences. He wants to examine if their tea preference influences their IQ, by administering an IQ test. What type of variable is "tea preference"?**
    a. Dependent
    b. Independent
    c. Operational
    d. Quasi-Independent

5. **Which of the following steps of the scientific method is accurately described?**
    a. A hypothesis predicts the effect of a dependent variable on an independent variable
    b. A conclusion is how a researcher evaluates and interprets their findings
    c. The updating/discarding process can be used when a theory/hypothesis is unfalsifiable
    d. A theory is the combination of multiple researchers' knowledge and beliefs

6. **Kate is reading a website based on the pseudoscience called "spukndoichology", which suggests that grinding pebbles and scattering them lightly into milk for consumption can lead to better sleep. Which of her following observations on the website act as evidence for spukndoichology as being a pseudoscience?**
    a. There are hundreds of testimonies on the website reporting a range of varying successes
    b. The researchers on the website have provided explanations of the process which are unfalsifiable
    c. The researchers on the website earned qualifications from a prestigious university
    d. The statements on the website overlap with Kate's scientifically verified textbook on psychology

7. **The ability of a test to repeatedly produce consistent results in the same participants is best described as:**
    a. Internal reliability
    b. Test-retest reliability
    c. Replication
    d. Inter-observer reliability

8. **Coach Carter scouts out the best basketball team by solely using results from a vertical jump test. This is an example of low:**
    a. Test-retest reliability
    b. Ecological validity
    c. Content validity
    d. Population validity

9. **Daniel wants to test his IQ. He takes one test from 123intelligence.com and another from howsmartareyou.com. Both tests generate similar IQ scores. These tests show high:**
    a. Predictive validity
    b. Criterion validity
    c. Divergent validity
    d. Concurrent validity

10. **Unobtrusive observation aims to reduce:**
    a. Maturation effects
    b. Selection bias
    c. Experimenter bias
    d. Participant reactant bias

11. **Which of the following is not a confound?**
    a. Non-response bias
    b. Demand characteristics
    c. Maturation
    d. Third variable problem

12. **Which of the following procedures is specifically designed to reduce experimenter bias?**
    a. Blind procedures
    b. Control groups
    c. Indirect measures
    d. Unobtrusive observation

13. **Which of the following statements is characteristic of a case study?**
    a. High external validity since a high level of detail is captured in the description and measurements of subjects
    b. High internal validity since many of the situations from case studies are non-replicable in laboratory settings
    c. Subjects observed are representative of the general population
    d. Case studies involve detailed measurements or descriptions of subjects

14. **Tuco is playing baseball with his friends as the pitcher - he watches their behaviour and interacts with them, to better understand how social groups function. What type of descriptive research has Tuco used?**
    a. Case Study
    b. Naturalistic Observation
    c. Participants Observation
    d. Questionnaire

15. **Which of the following is an example of a cross-sectional study?**
    a. Josephus observes 30 male teachers aged between 23 and 92
    b. Josephus recruits a baby, infant, adolescent, adult and elder to complete an IQ test
    c. Josephus interviews a class of thirty male boys each year during their school education
    d. Josephus sends a questionnaire to a university which has students aged between 21 and 87

16. **Which statement is incorrect?**
    a. Correlational studies cannot show temporal sequence
    b. Correlational studies have difficulty in eliminating confounds
    c. Correlational studies show covariance between variables
    d. Correlational studies have low internal validity

17. **Bryan goes to the cinema and consequently must go to the bathroom. While he was at the cinema, he consumed a large popcorn and a large soft drink. The relationship between the cinema and Bryan's need to go to the bathroom is a:**
    a. Direct correlational relationship
    b. Indirect correlational relationship
    c. Third variable correlational relationship
    d. Spurious correlational relationship

18. **Which is characteristic of a positive correlation?**
    a. As Bellamy drinks more alcohol, he sleeps less
    b. As Bellamy has a more positive attitude to university, he takes less time to arrive on campus
    c. As Bellamy sees his girlfriend less, he gradually stops playing video games
    d. As Bellamy consistently listens to music, he has a more positive mindset toward university work

19. **Which of the following is NOT the primary reason quasi-experiments are used?**
    a. The temporal sequence is often clear
    b. Some things can't be manipulated in the lab
    c. They are effective at matching or patching groups for relevant threats
    d. They are higher in external validity than true experiments

20. **You hypothesise that bilingual students are more likely to perform highly on intelligence tests than monolingual students. You conduct an experiment, first asking students to complete a pre-screening task, then undertaking a standardised intelligence test. In this experiment, the quasi-independent/dependent variable is:**
    a. Level of intelligence/performance on the intelligence test
    b. Being monolingual or bilingual/performance on the intelligence test
    c. Pre-screening task/being monolingual or bilingual
    d. Quasi-independent does not exist - it is a true independent variable

21. **Hugo conducts a pre-screening test where he wants to split his sample size of 100 into either high or low extraversion. Hugo says that he wants to retain as much of the sample size as possible. Which of the following options would you suggest for Hugo?**
    a. Take the top and bottom quartile
    b. Mean split
    c. Median split
    d. Run a t-distribution and split accordingly

22. **Random sampling**
    a. enhances internal validity
    b. reduces systematic individual differences
    c. is integral to true experiments
    d. enhances external validity

23. **Chad wants to account for individual differences in his true experiment. You recommend that he uses a/an:**
    a. in-between person study design
    b. within-subject study design
    c. two-way design
    d. counterbalancing design

24. **Which of the following is not true of true experiments?**
    a. Demonstrate strong causality
    b. High internal validity
    c. Random allocation
    d. Systematic manipulation of quasi-independent variable

25. **Barry reads a study about a patient named Akif. He understands how Akif was involved in a cycling accident that caused him damage to his amygdala, and the researchers in the study conducted multiple assessments on him to examine his behaviour. The study was approved legally. Which ethical consideration have the researchers breached?**
    a. Informed consent
    b. Confidentiality
    c. Valid research design
    d. Protection from undue stress or harm

26. **Which of the following is not an ethical consideration when conducting animal research?**
    a. Restoration
    b. Replacement
    c. Reduction
    d. Refinement

27. **Which scenario is characteristic of the falsification of data?**
    a. Joli reads her colleague's research paper on lobsters' emotions and re-publishes it as her own
    b. Joli conducts research to support the fact that lobsters have no emotions when her family owns a lobster farm
    c. Joli reports data in which lobsters smile when in the presence of salt, however, never observed any lobsters
    d. Joli hypothesises that lobsters have no emotion, but even when observing many lobsters smiling in the presence of shallots, she still reports no lobster as having any emotional response

28. **Which of the following is an example of a population?**
    a. A census of Australia citizens
    b. 23 psychology students at UNSW
    c. One politician from each state in the USA
    d. 1000 citizens of each continent

29. **The grading system of A+, A, A-, B+ and so forth can be measured best on which scale?**
    a. Nominal
    b. Ordinal
    c. Interval
    d. Ratio

30. When more than 50% of scores in a set of data are above the mean, data is:

a. Symmetrical
b. Positively Skewed
c. Neutrally Skewed
d. Negatively Skewed

31. Assume that we had the following set of data:

Score	11	12	17	18	19	20	21	22	23	24	25
Frequency	2	1	5	8	6	12	13	10	15	9	8

These data would most likely be characterized as

a. positively skewed
b. normal
c. negatively skewed
d. uniformly distributed

32. For the data below the distribution would best be called

Score	11	12	17	18	19	20	21	22	23	24	25
Frequency	2	1	5	8	6	12	13	10	15	9	8

a. bimodal
b. unimodal
c. symmetric
d. balanced

33. Inglehart (1990) presented data on the mean Satisfaction with Life scores for 24 developed countries. These data follow:

Country	Mean Satisfaction	Country	Mean Satisfaction
Portugal	5.5	Canada	7.2
Greece	5.8	Belgium	7.3
Japan	6.4	Britain	7.5
Spain	6.5	U.S.A.	7.55
Italy	6.5	Ireland	7.7
South Africa	6.6	Luxemburg	7.75
France	6.6	Finland	7.75
Argentina	6.72	Norway	7.85
Hungary	6.95	Australia	7.9
Austria	7.1	Switzerland	7.95
Netherlands	7.2	Denmark	8.0
West Germany	7.2	Sweden	8.0

A histogram of these data would be

a. reasonably symmetric.
b. positively skewed.
c. very bimodal.
d. impossible to draw.

34. A normal distribution must

a. have outliers.
b. be symmetric.
c. be positively skewed.
d. be negatively skewed.

35. **Knowing that data are normally distributed allows me to:**
    a. calculate the probability of obtaining a score greater than some specified value.
    b. calculate the probability of obtaining a score of exactly 1.
    c. calculate what range of values are unlikely to occur by chance.
    d. Both a and c

36. **A z score of 1.25 represents an observation that is**
    a. 1.25 standard deviation below the mean.
    b. 0.25 standard deviations above the mean of 1.
    c. 1.25 standard deviations above the mean.
    d. Both b and c

37. **Which of the following is a good reason to convert data to z scores?**
    a. We want to be able to estimate probabilities or proportions easily.
    b. We think that it is easier for people to work with round numbers.
    c. We want to make a skewed set of data into a normally distributed set of data.
    d. All of the above

38. **If behaviour problem scores are roughly normally distributed in the population, a sample of behaviour problem scores will:**
    a. be normally distributed with any size sample.
    b. more closely resemble a normal distribution as the sample size increases.
    c. have a mean of 0 and a standard deviation of 1.
    d. be negatively skewed.

39. **If we were to repeat an experiment a large number of times and calculate a statistic such as the mean for each experiment, the distribution of these statistics would be called**
    a. the distributional distribution
    b. the error distribution.
    c. the sampling distribution.
    d. the test outcome.

40. **Whether or not we reject the null hypothesis depends on**
    a. the probability of the result given the null hypothesis is true.
    b. how far the data is from what we would expect if the null hypothesis were true.
    c. the size of some test statistic.
    d. all of the above

41. **Which of the following pairings is correct?**
    a. Type I = α; Type II = β
    b. Type I = β; Type II = α
    c. Type I = $1-\alpha$; Type II = $1-\beta$
    d. Type I = α; Type II = $1-\beta$

42. Dr. Harmon expected that her neurotic patients would come significantly earlier to all scheduled appointments compared to other patients, and planned to run a one-tailed test to see if their arrival times were much earlier. Unfortunately, she found the opposite result - the neurotic patients came to appointments later than other patients. What can Dr. Harmon conclude from her one-tailed test?

a. Neurotic patients came to appointments significantly later than other patients.
b. Neurotic patients came to appointments significantly earlier than other patients.
c. Non-neurotic patients came to appointments significantly earlier than neurotic patients.
d. Neurotic patients did not come to appointments significantly earlier than other patients.

43. We would be least likely to use a repeated measures design when:

a. there are substantial individual differences.
b. there are minimal individual differences.
c. we want to control for differences among subjects.
d. we want to compare husbands and wives on their levels of marriage satisfaction.

Answers and Rationales

1. C

Rationale: *Charlie listened to a lecturer, who has academic qualifications and has been trusted with teaching their students. Charlie looks up to him/her and recognises them as an authority to whom he will refer as a source of information.*

2. A

Rationale: The article of a plane crash is more vivid in Saul's memory due to recently being encoded, and due to the shock of the event. He then overweights this vividly remembered information to make judgements.

3. D

Rationale: *Testability posits that evidence supports a theory/hypothesis, however, this does not imply it can be accepted or confirmed.*

4. D

Rationale: *The variable is quasi-independent since it is the variable that is measured to predict a change in the dependent variable (i.e. it manipulates the dependent variable); however, the participants cannot be randomly allocated as the variable relies on their own attributes.*

5. B

Rationale: *A conclusion is how a researcher evaluates and interprets their findings.*

6. B

Rationale: *The claims of pseudoscience are usually unfalsifiable, in which the claim/theory proposed cannot be disproven or updated - it is inferred that Kate found evidence that spukndoichology is immune to updating to discarding.*

7. B

Rationale: *Test-retest reliability refers to the ability of a measure to produce the same results at different points in time amongst the same participants. The definition may seem similar to replication, however, replication refers to being able to produce the same results across different samples and different experiments.*

8. C

Rationale: *This is the extent to which an item accurately represents all facets of a construct. Whilst the vertical jump may certainly be relevant in basketball, it by no means accounts for all facets of a good basketball player.*

9. D

Rationale: *Concurrent validity is high when two different measures which purport to measure the same thing correlate with each other strongly.*

10. D

Rationale: *Participant reactant bias refers to the way in which participants modify behaviour because they know that they are conducting an experiment. Observing participants in a way in which they are unaware should reduce modified behaviour.*

11. A

Rationale: *Non-response bias is an artifact- not a confound. Non-response bias affects the external validity of results, not the internal validity.*

12. A

Rationale: *Blind procedures involve researchers not knowing which participants are assigned to the control or experimental group, reducing their biases in observing participants' behaviour.*

13. D

Rationale: *A case study involves measuring a specific group or individual, ruling out A and C since case study participants are not representative of many populations, and lack generalisation. It also lacks internal validity since no variables are manipulated; the fact that case study scenarios are often non-replicable in laboratory settings is unrelated to internal validity. D is correct since case studies focus on a specific group to gain detailed measurements/descriptions in order to further scientific inquiry.*

14. C

Rationale: *Tuco observed participants' behaviour, where the participants were from his baseball team. Rather than observing them from afar and unacquainted, Tuco was part of the group, acting as one of the participants to note down observations from within the participant group.*

15. A

Rationale: *A is correct since Josephus is examining individuals who share similar characteristics, tested at the same time, but aged differently to measure how age impacts a certain behaviour. It is not B, since it is not specified whether the participants have similar characteristics. C is an example of a longitudinal design. D has too much variation between participants, as students are mostly not similar, as they all take different courses.*

16. A

Rationale: *Temporal sequence is possible in correlational studies, however, it is difficult to measure which variable precedes the other. Correlational studies show some temporal sequence but to a limited extent.*

17. B

Rationale: *Let us consider that the cinema is variable x, and Bryan's need to go to the bathroom is variable y. x did not directly cause y, rather, x caused y through Bryan's consumption of a large popcorn and soft drink, called variable y. By this, z was necessary for x to cause y.*

18. C

Rationale: *C is correct since the two variables travel in the same direction; "seeing his girlfriend" and "playing video games" decrease together, forming a positive relationship*.

19. A

Rationale: *Temporal sequence is often unclear in quasi-experiments, whilst the statements in B, C and D are reasons that justify the use of quasi-experiments.*

20. B

Rationale: *Being monolingual/bilingual is the grouping variable. The dependent variable i.e. outcome being affected is their performance on the intelligence test.*

21. C

Rationale: *Median split is the best answer in this scenario because no data is lost. N.B. there is no such thing as a mean split.*

22. D

Rationale: *Random sampling is the approach to recruiting subjects for study. It tries to sample different elements of the population proportionally i.e. a more representative sample, enhancing external validity (generalising results)*

23. B

Rationale: *Within-subject study design has all participants undergo both conditions in an experiment; this decreases the confound of individual differences since the same group is assessed in both conditions.*

24. D

Rationale: *The answer is D. Quasi-independent variables do not exist in true experiments.*

25. B

Rationale: *Akif's name was mentioned in the study, as Barry identifies him by name. Since the study was legally approved, it can be implied that informed consent was given. We do not have enough information as to whether the research design was valid or protective, however, we are given enough information to understand that the researchers did not protect Akif's confidentiality.*

26. A

Rationale: *Restoration is not one of the three Rs of animal ethics.*

27. D

Rationale: *Falsification of data implies changing existing data to support a hypothesis, which is the case of D. A is an example of plagiarism, B is an example of conflict of interest and C is an example of fabricating data*

28. A

Rationale: *A is the whole population of Australia, whilst the other options are samples of a population (i.e. B/C/D are a representation of a wider population)*

29. B

Rationale: *Ordinal is correct since these grades can be distinguished based on identity (letter name and + or -), alongside having a specific order (A is better than B). However, there are no equal unit sizes or true zero points.*

30. D

Rationale: *Negatively skewed since there is a tail to the left, in which more scores are above the mean, and the mean is skewed more to the negative side (falling below the median and mode)*

31. C

Rationale: *More than 50% of the data is above the main and there is a tail to the left, thus the skew is negative.*

32. B

Rationale: *There is only one mode (most common score) in the data.*

33. A

Rationale: *50% of data is generally below and above the mean.*

34. B

Rationale: *Normal distributions are symmetric, which means they have neither a negative nor positive skew - outliers are also not included in the data*

35. D

Rationale: *Stated in "Probability and Standard Normal Distribution" lectures*

36. C

Rationale: *The z-score represents how far an observation is from the mean using standard deviations. Since the z-score is positive, it is above the mean*

37. A

Rationale: *B and C are untrue. Z-scores allow easy estimation of probabilities or proportions since the distribution of different data sets can be compared using standard deviations*.

38. B

Rationale: *Increasing sample size reduces standard error, showing a more normal distribution.*

39. C

Rationale: *Stated in "Distribution of Sample Means" lectures*

40. D

Rationale: *Stated in "Inferential Statistics and Hypothesis Testing" lectures*

41. A

Rationale: *Stated in "Confidence Intervals" lectures*

42. D

Rationale: *H_1 is that neurotic patients would come significantly earlier to all scheduled appointments compared to other patients, and H_0 is that neurotic patients did not come to appointments significantly earlier than other patients. Since she got the opposite result to H_1, there is insufficient evidence to reject H_0. Therefore, she must conclude that neurotic patients did not come to appointments significantly earlier than other patients.*

43. B

Rationale: *Stated in "t-Test Statistics for Inference about Population Means and Mean Difference" lectures*