

 **Year 12 April Exams**

Subject: Psychology

Paper No: 1

Paper Title: Research Methods

Time allowed: 120 mins (+30 minutes Extra Time)

**Student Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Teacher: Mrs Evagora / Mr Kirsten / Ms Meister**

Special instructions:

**Materials**: For this paper you must have a scientific calculator

**Instructions:**

* Use black ink.
* Answer **all** the questions.
* Write your answer to each question in the space provided.

Mark: \_\_\_\_\_\_ / 90 Grade: \_\_\_\_\_\_

SECTION A: Multiple Choice

Answer all the questions

1 Which is the name of a type of interview?

1. closed
2. likert
3. quasi
4. structured

 Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

2 Look at the following academic reference:

Milgram, S. (1963) Behavioral study of obedience. Journal of Abnormal and Social Psychology 67

What is the error in this Harvard style reference?

1. the date of the study should be at the end of the reference
2. the page numbers are missing
3. the surnames of the researchers should be listed in alphabetical order
4. the title should give the aim of the investigation

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

3 Which of the following is a null hypothesis?

1. Extroverted people will always perform better in front of an audience than introverted people.
2. There will be a difference between the performance of extroverted and introverted people when in front of an audience.
3. There will be a negative correlation between how introverted people are and how well they perform in front of an audience.
4. There will be no difference between extroverted and introverted people in terms of how well they perform in front of an audience.

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

4 Look at the following data set from a condition where participants were timed (in seconds) completing a task in an emergency situation.

{36 45 51 67 54 19 50 45 27 76 54 45}

What is the mode of this data set?

1. 19
2. 45
3. 47.5
4. 54

 Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

5 What is the independent variable in this hypothesis?

H1: “Women who earn above average salaries will score higher on a confidence test than women who earn below average salaries.”

1. earnings above or below average salaries
2. high or low average salary
3. high or low score on a confidence test
4. women or men

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

6 Variables in an experiment are operationalised, which means they are

1. Described in a way that can be easily measured or manipulated
2. Turned into numbers
3. Understandable by participants
4. Used in a medical experiment

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

7 What is meant by the term ‘socially desirability bias’ in participants’ responses in psychological research?

1. responses which are personal even if they are subjective
2. responses which are reliable even if they are invalid
3. responses which reflect the participants’ wishes even if they are unacceptable to others
4. responses which the participants think they ought to give even if they are not true

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

8 Which is an example of qualitative data?

1. the diary entries of six patients suffering from schizophrenia
2. the length of time each participant spent reading a list of words
3. the most frequent colour chosen by extroverts
4. the percentage of respondents who agreed with capital punishment

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

9 What is the probability of a significant result occurring by chance where the significance level is p≤0.025?

1. 2.5% or less
2. 25% or less
3. at least 97.5%
4. less than 2.5%

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

10 Which inferential test should a researcher use to decide whether a correlation is significant?

1. Binomial
2. Mann–Whitney U
3. Spearman’s Rho
4. Wilcoxon

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

11 Which one of the following is a feature of all types of experiments (laboratory, field or natural / quasi)?

1. direct manipulation of the independent variable
2. measurement of a dependent variable
3. random allocation of participants to conditions
4. use of a controlled environment

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

12 How was one of the dependent variables measured in Casey et al’s (2011) study into delay of gratification?

1. performance on the impulse control task (in terms of reaction times and accuracy)
2. the participant’s ability to perform a variety of visual and tactile tests
3. whether a person had hemisphere deconnection or not
4. whether the participant was a high delayer or a low delayer

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

13 A correlation coefficient of +0.75 indicates

1. Negative correlation
2. No correlation
3. Strong positive correlation
4. Weak positive correlation

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

14 What is a weakness of using a mode as a measure of central tendency?

1. it can generate a number not in the data set
2. it is easily affected by outliers
3. it is not suitable for nominal data
4. it relies on a score occurring more than once

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

15 If data is significant at the 5% level, what would this mean in terms of the hypothesis?

1. the directional or non-directional hypothesis is accepted
2. the directional or non-directional hypothesis is rejected
3. the hypothesis is significant
4. the null hypothesis is accepted.

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

16 In Bandura’s (1961) Bobo doll study, the participants were pre-tested to assess their aggression levels.

What was the main purpose of this pre-testing?

1. to allow for a matched pairs design
2. to exclude children who were especially aggressive
3. to help to decide on the sex of the role model for each participant
4. to measure the change in aggression before and after the experiment

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

17 What method is Sperry's research?

1. Field experiment
2. Laboratory experiment
3. Natural experiment
4. Observation

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

18 Which is an example of interval level data?

1. the mass, in grams, of the brain of an individual with schizophrenia
2. the number of nightmares experienced by a schizophrenic
3. the number of times a schizophrenic has been admitted to hospital
4. the rating of the severity of the delusions experienced by an individual with schizophrenia

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

19 Which of these refers to making a Type 1 error?

1. abandoning the H0
2. ignoring the H0
3. incorrectly accepting the H0
4. incorrectly rejecting the H0

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

20 Which experimental design was used in Casey et al’s (2011) study into delay of gratification?

1. double blind
2. independent measures
3. matched pairs
4. repeated measures

Your answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [1]

SECTION B: Research design and response

Answer all the questions

Answer all the questions.

Dreaming is something that we all do, regularly, yet despite this we know very little about it. Why is it that some people seem to remember their dreams more than others? Why do some people have pleasant dreams whereas others have nightmares? Perhaps what we have done in the day, or even type of foods we have eaten influence our dreams. Do we have more dreams, or less as we get older? There is clearly much we do not know. To investigate further, psychologists want to use the self-report method to find out more about dreaming.

21 Write a research aim for this study. [2]

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22 What is a semi-structured interview? [2]

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23 Explain how you could use a semi-structured interview for this study. [4]

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24 Evaluate the use of a semi-structured interview in this study. [6]

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25 Explain how you would use the self-report method to investigate dreaming. Justify your decisions as part of your explanation. You must refer to:

* sample and sampling technique
* your questionnaire
* open and closed questions
* Likert scale questions

You should use your own experience of carrying out a self-report to inform your response. [15]

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26 Explain one strength and one weakness of using the self-report method in this study. [6]

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Turn over for the next question.

SECTION C: Data analysis and interpretation

Answer all of the questions



You see what you expect to see

A psychologist tested the effects of expectations on people’s perceptions by carrying out the following experiment.

The test item was an ambiguous image – an image that had been purposefully drawn to be perceived in one of two ways:

• as a duck

• as a rabbit.



Participants had to say what they saw after they had viewed the image for one second.

Before carrying out the experiment, the psychologist had checked with 3 independent judges that the ambiguous image could be perceived in both ways. His findings are presented in the bar chart below:

A bar chart to show the frequency of the different ways in which the ambiguous image was perceived

10

9

8

7

6

5

4

3

2

1

0

Duck

Rabbit

**Image perceived**

Other

27 State two findings from the bar chart. [2]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

28 Explain why a bar chart is appropriate for presenting **this** data. [2]

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29 Name **and** outline the measure of central tendency which would be used in **this** study. [3]

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30 Explain how the researcher had ensured internal reliability in **this** study. [3]

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To further this research, fifty students were recruited and then randomly allocated into two groups.

* Condition A: five drawings of other birds were presented, one after the other, before the ambiguous image. Participants had to name each one of these.
* Condition B: the set up was the same but five images of small animals were used.

The drawings of the birds and animals were included in the psychologist’s written report, along with the consent and debrief forms.

31 Name **and** briefly describe the experimental design used in **this** follow up study. [2]

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32 Explain why this experimental design was appropriate for **this** study. [3]

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33 To what extent does this study lack population validity? [3]

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The findings from the study are presented below:

**A table to show the number of participants who perceived the ambiguous image as a duck or as a rabbit from both conditions:**

|  |  |  |
| --- | --- | --- |
|  | **Perceived as a duck** | **Perceived as a rabbit** |
| **Image presented after seeing 5 pictures of birds** | **18** | **4** |
| **Image presented after seeing 5 pictures of small animals** | **5** | **17** |

34 Identify the section of a Psychology report where this table of results would be placed. [1]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

35 The psychologist analysed the results of his study using the Chi Squared inferential statistical test. Give **two** reasons for this choice of test with reference to **this** study. [4]

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36 Explain how the psychologist would determine the appropriate degrees of freedom (df) for **this** test. Show your working out. [2]

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The Chi Squared inferential statistical test gave an observed (calculated) value of 3.80

Levels of significance for a one–tailed test

|  |  |  |  |
| --- | --- | --- | --- |
| **Significance Level p ≤**  | 0.05 | 0.025 | 0.01 |
| **Critical Value for df = 1** | 2.71 | 3.84 | 5.41 |

37 Using the table of critical values above, explain whether the psychologist has found a significant difference or not. [4]

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38 Explain is meant by a ‘Type 1 error’. [2]

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39 Identify the section of a Psychology report where the drawings, consent and debrief forms would be placed. [1]

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40 Explain what is meant by peer review. [3]

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END OF QUESTION PAPER

Additional Writing Space

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