Year 13 Predicted Grade 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

Group/Set: 13C

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?

A closed
B likert
C quasi
D 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?

A the date of the study should be at the end of the reference
B the page numbers are missing
C the surnames of the researchers should be listed in alphabetical order
D the title should give the aim of the investigation

Your answer _____ [1]

3 Which of the following is a null hypothesis?

A Extroverted people will always perform better in front of an audience than introverted people.
B There will be a difference between the performance of extroverted and introverted people when in front of an audience.
C There will be a negative correlation between how introverted people are and how well they perform in front of an audience.
D 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?

A 19
B 45
C 47.5
D 54

Your answer _____ [1]

5 What is the independent variable in this hypothesis?

H_1: "Women who earn above average salaries will score higher on a confidence test than women who earn below average salaries."

A earnings above or below average salaries
B high or low average salary
C high or low score on a confidence test
D women or men

Your answer _____ [1]

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

A Described in a way that can be easily measured or manipulated
B Turned into numbers
C Understandable by participants
D Used in a medical experiment

Your answer _____ [1]

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

A responses which are personal even if they are subjective
B responses which are reliable even if they are invalid
C responses which reflect the participants' wishes even if they are unacceptable to others
D 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?

A the diary entries of six patients suffering from schizophrenia
B the length of time each participant spent reading a list of words
C the most frequent colour chosen by extroverts
D 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 $p \leq 0.025$?

A 2.5% or less
B 25% or less
C at least 97.5%
D less than 2.5%

Your answer _____ [1]

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

A Binomial
B Mann–Whitney U
C Spearman's Rho
D Wilcoxon

Your answer _____ [1]

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

A direct manipulation of the independent variable
B measurement of a dependent variable
C random allocation of participants to conditions
D 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?

A performance on the impulse control task (in terms of reaction times and accuracy)
B the participant's ability to perform a variety of visual and tactile tests
C whether a person had hemisphere deconnection or not
D whether the participant was a high delayer or a low delayer

Your answer _____ [1]

13 A correlation coefficient of +0.75 indicates

A Negative correlation
B No correlation
C Strong positive correlation
D Weak positive correlation

Your answer _____ [1]

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

A it can generate a number not in the data set
B it is easily affected by outliers
C it is not suitable for nominal data
D 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?

A the directional or non-directional hypothesis is accepted
B the directional or non-directional hypothesis is rejected
C the hypothesis is significant
D 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?

A to allow for a matched pairs design
B to exclude children who were especially aggressive
C to help to decide on the sex of the role model for each participant
D to measure the change in aggression before and after the experiment

Your answer _____ [1]

17 What method is Sperry's research?

A Field experiment
B Laboratory experiment
C Natural experiment
D Observation

Your answer _____ [1]

18 Which is an example of interval level data?

A the mass, in grams, of the brain of an individual with schizophrenia
B the number of nightmares experienced by a schizophrenic
C the number of times a schizophrenic has been admitted to hospital
D 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?

A abandoning the H0
B ignoring the H0
C incorrectly accepting the H0
D incorrectly rejecting the H0

Your answer _____ [1]

20 Which experimental design was used in Baron-Cohen's study on Autism?

A double blind
B independent measures
C matched pairs
D repeated measures

Your answer _____ [1]

SECTION B: Research design and response

Memory can be influenced by many different things, including the appearance of what it is we are trying to remember. For example, green is a natural colour that features a lot in our environment, so may help improve how we learn and remember things we see in this colour. To investigate this psychologists want to use the laboratory experiment method to investigate if presenting words in green ink compared to black helps improve memory.

21. Participants for the study will be obtained by putting up a poster on a notice board in a large local supermarket asking for volunteers for a study investigating factors influencing memory. What type of sampling technique is this? [1]

_____

_____

22. Explain one strength and one weakness of using this sampling technique **in this study**. [6]

_____

_____

_____

_____

_____

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_____

23. Write a one-tailed, directional hypothesis for this study. [3]

_____

_____

_____

_____

_____

_____

24. Explain how you would conduct a study using the laboratory experiment method to investigate the effect of colour on memory for a list of words. Justify your decisions as part of your explanation. You must refer to:

- the use of independent measures or repeated measures design
- how the variables are operationalised
- at least two control features
- level of data collected (nominal / ordinal / interval)

You should use your own experience of carrying out an experiment to inform your response. [15]

Psychologists want to conduct a follow-up study using the self-report method to investigate other things that may influence memory.

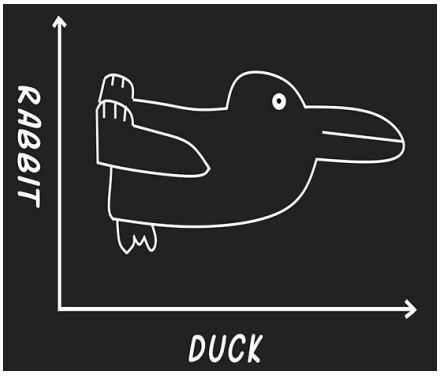
25. State **one** open question that could provide additional information in the form of qualitative data for use **in this study**. [2]

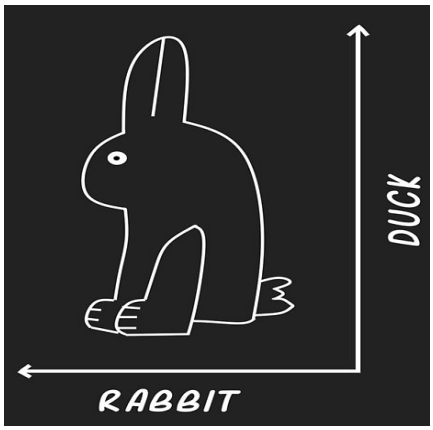
26. Outline one strength of having some qualitative data **in this study** on memory. [3]

27. State one question using a semantic differential scale that could be used **in this study**. [2]

28. Explain one way in which this self-report on memory can be designed to increase the generalisability of the findings **from this study**. [3]

SECTION C: Data analysis and interpretation
Answer all of the questions





You see what you expect to see

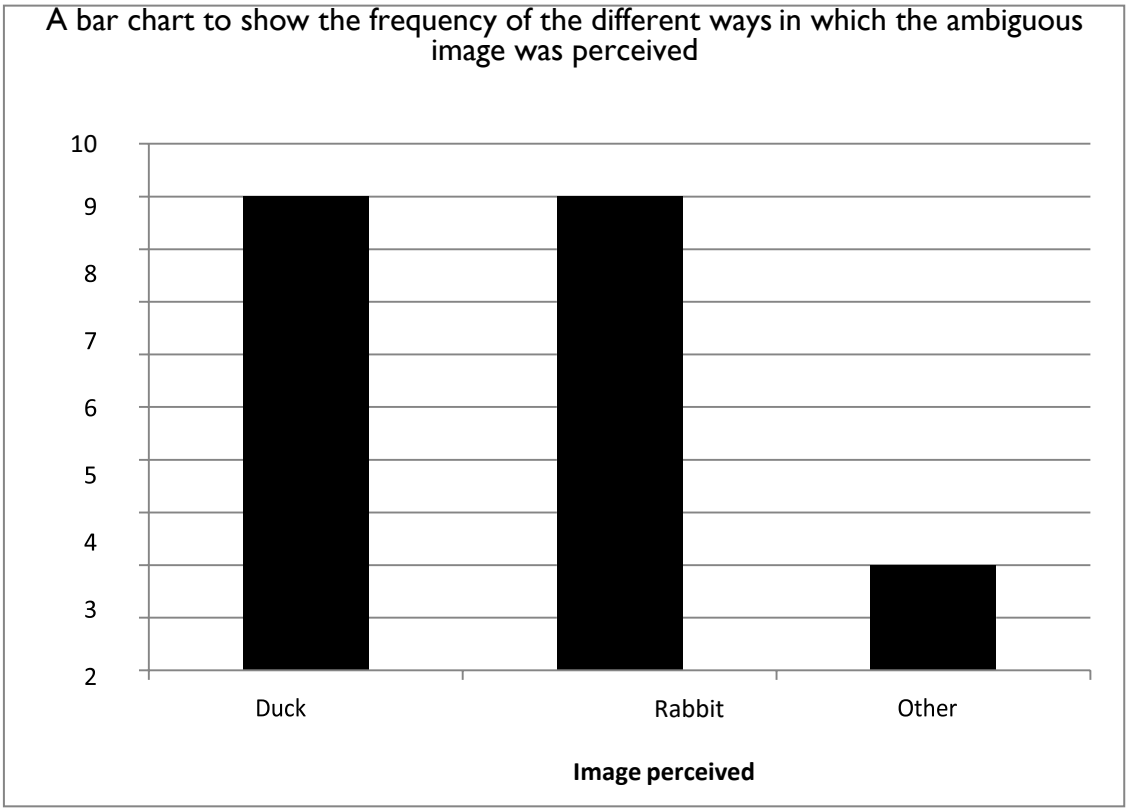
A psychologist tested the effects of expectations on people's perceptions by carrying out the following experiment.

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



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

_____

_____

_____

_____

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

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

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

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.

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

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

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

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**

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

37 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]

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

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

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

40 Explain is meant by a 'Type 1 error'. [2]

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

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

END OF QUESTION PAPER

Additional Writing Space

Year 13 Predicted Grade Exams

Subject: Psychology

Paper No: 2

Paper Title: Psychological Themes through Core Studies

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

Student Name:_____

Teacher: Mrs Evagora / Mr Kirsten / Ms Meister

Group/Set: 13C

Instructions:

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

Mark: _____ / 105 Grade: _____

Section A: Core studies

Answer **all** the questions in Section A.

1. The study by Loftus and Palmer on eye witness testimony involved the **experimental method**. Explain **one** strength and **one** weakness of the experimental method used in **this** study. [6]

2. From the study by Loftus and Palmer on eye witness testimony, outline two ways in which the procedure was standardised. [4]

3. Explain why Sperry's 'split brain' study is a natural / quasi experiment. [2]

4. From Sperry's 'split brain' study into the psychological effects of hemisphere deconnection, describe **one** finding from the visual tests used in this study. [2]

5. From Sperry's 'split brain' study into the psychological effects of hemisphere deconnection, describe **one** finding from the composite word tests used in this study. [2]

6. Outline **one** similarity between Sperry's 'split brain' study and Casey's study on the delay of gratification. [3]

7. To what extent does the study by Casey's study change our understanding of regions of the brain? [3]

8. Freud claimed that Little Hans was experiencing the Oedipus complex. **Describe** the Oedipus complex in relation to **this** study. [4]

9. In Baron-Cohen et al.'s study into autism in adults, the Ps with autism were found to be unimpaired on two control tasks. Describe these two control tasks. [4]

10. In Baron-Cohen et al.'s study into autism in adults, state one of the word pairs used in the Eyes task. [1]

11. From Baron-Cohen et al.'s study into autism in adults, identify the independent variable (IV) in the Eyes Task. [2]

12. From Baron-Cohen et al.'s study into autism in adults, identify the dependent variable (DV) in the Eyes Task. [2]

Section B: Areas, perspectives and debates

Answer **all** the question parts in Section B.

13. Outline **two** principles of the Individual Differences area of psychology. [4]

14. Outline how Bandura's Bobo doll study links to the **Developmental** area. Support your answer with evidence from this study. [3]

15. Outline **two** characteristics of scientific research. [4]

16. Explain how one psychological study may be described as unscientific. [3]

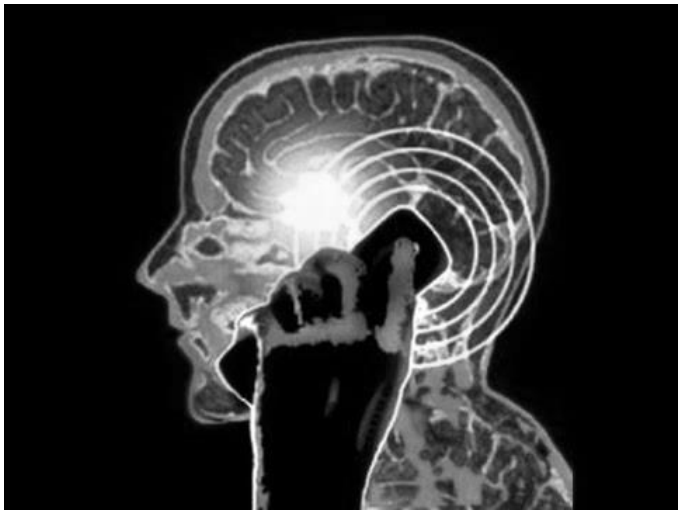
17. Evaluate the usefulness of carrying out reductionist research. Support your answer with evidence from at least one core study. **[6]**

18. Discuss the individual and situational explanations of behaviour debate in psychology. Use examples from appropriate core studies to support your answer. [15]

Section C: Practical applications

Answer **all** the question parts in Section C.

Source 1: Don't Dial then Drive! The Campaign to ban the use of mobile phones BEFORE Driving



A campaign group is calling for drivers to be banned from using their mobiles half an hour **BEFORE** driving. This is because a study shows that mobile phones affect spatial awareness (understanding how objects fit together in space or 3 dimensions).

The campaign group used the evidence from a 2009 study into the effects of exposure to radiofrequency radiation (RFR) given off by mobile phones on the brain.

The study found that men had longer (slower) response times to a spatial task (such as completing a Rubik's cube, assembling IKEA furniture, parking a car) after having a mobile phone next to their ear.

This effect continued up to half an hour after using the mobile phone. Also, the researchers noticed that when a right handed person held the mobile to their left ear, their response times were even slower.

The campaign group is arguing that because driving is a spatial task, the brain should be allowed to recover from the RFR from having a mobile next to your ear before driving.

There has been further suggestion that the punishment for people using their mobile phone whilst driving should depend on which ear the mobile is next to and which hand the person usually writes with.

19. Identify **one** psychological issue raised by the source 1. Support your answer with evidence from the source. [3]

_____

_____

_____

_____

_____

20. Explain why this article can be viewed as being relevant to Biological Psychology. Support your answer with evidence from the source. [4]

21. Outline **one** piece of psychological research that links to source 1 and justify how it relates to the source. [6]

Source 2

Abel, aged 3, has developed a phobia of dogs. His mother can no longer cope with him because Abel refuses to go outside of the house in case he sees a dog. When she does manage to get him outside, he will scream with terror every time he sees a dog. He often shows his fear by punching his baby sister. Abel's father has suggested that he is taken to see a psychologist.

22. Explain how the Freud's case study of Little Hans could relate to this source. Support your answer with evidence from the source. [3]

23. Identify **one** psychological issue raised by the source 2. Support your answer with evidence from the source. [3]

24. Use your psychological knowledge to suggest a way to manage the Abel's phobia. [6]

25. Evaluate your strategy to manage Abel's phobia. [10]

END OF QUESTION PAPER

Additional writing space

Year 13 Predicted Grade Exams September 2020 Psychology Mark Scheme 13D

Paper 1 H567/01 Research Methods

Paper 1 General Comments

Multiple Responses/ Scattergun approach

Where a question asks for ONE / TWO, and more than this number are given,

- Mark the first one / two depending on the question,
- Add the lamda symbol into the text λ
- Ignore any further part of the answer which is also a strength / weakness.
- When marking on screen, this further part should be highlighted.

λ

Unacceptable answers for Q21, 24, 26 and Q27

Do NOT accept answers which state that the research methodology is:

- More **accurate** (e.g. Q21 – observations are more accurate because both observations and self-reports are accurate)
- More **scientific** (e.g. Q27 – structured and unstructured observations are scientific)
- More **valid** (unclear which type of validity is being referred to or why)
- More **reliable** (unclear which type of reliability is being referred to or why)
- Gives **more data** (e.g. Q24 this is determined by the sample not the experimental design)
- Is **cheap** (lack of comparison or explanation to show why this is a strength)
- Is **quick** (lack of comparison or explanation to show why this is a strength)
- Is **easy to analyse / interpret** (lack of comparison or explanation to show why this is a strength)

Section A: Multiple Choice

1 Which is the name of a type of interview?

D structured

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?

B the page numbers are missing

3 Which is a null hypothesis?

D 'There will be no significant difference between extroverted and introverted people in terms of how well they perform in front of an audience.'

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?

B 45

5 Read the following hypothesis: H1: "Women who earn above average salaries will score significantly higher on a confidence test than women who earn below average salaries." What is the independent variable in this hypothesis?

A earnings above or below average salaries

Year 13 Predicted Grade Exams Sept 2020 Psych Mark Scheme

6	Variables in an experiment are operationalised, which means they are:
A	Described in a way that can be easily measured or manipulated

7	What is meant by the term 'socially desirability bias' in participants' responses in psychological research?
D	responses which the participants think they ought to give even if they are not true

8	Which is an example of qualitative data?
A	the diary entries of six patients suffering from schizophrenia

9	What is the probability of a significant result occurring by chance where the significance level is $p \leq 0.025$?
A	2.5% or less

10	Which inferential test should a researcher use to decide whether a correlation is significant?
C	Spearman's Rho test

11	Which one of the following is a feature of all experiments?
B	measurement of a dependent variable

12	How was one of the dependent variables measured in Casey et al's (2011) study into delay of gratification?
A	performance on the impulse control task (in terms of reaction times and accuracy)

13	A correlation coefficient of +0.75 indicates:
C	Strong positive correlation

14	What is a weakness of using a mode as a measure of central tendency?
D	it relies on a score occurring more than once

15	If data is significant at the 5% level, what would this mean in terms of the hypothesis?
A	the directional or non-directional hypothesis is accepted

16	In Bandura's (1961) Bobo doll study, the participants were pre-tested to assess their aggression levels.
A	to allow for a matched pairs design

17	What method is Sperry's research?
C	Natural experiment

18	Which is an example of interval level data?
A	the mass, in grams, of the brain of an individual with schizophrenia

19	Which of these refers to making a Type 1 error?
D	incorrectly rejecting the H_0 hypothesis

20	Which is the experimental design used in Baron-Cohen et al's (1997) study on Autism?
C	matched pairs

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Section B: Research design and response

21. Participants for the study will be obtained by putting up a poster on a notice board in a large local supermarket asking for volunteers for a study investigating factors influencing memory. What type of sampling technique is this? [1]

Self-selecting / selected / volunteer

22. Explain 1 strength & 1 weakness of using this sampling technique in this study. [4]

How the marks are awarded for each evaluation point:

- 1st mark: accurate strength / weakness is stated
- 2nd mark: and explained using a value judgement
- 3rd mark: in the context of this study (context words = 'supermarket', 'shopping', 'memory', 'colour of words', 'green')

Examples of evaluation points

Strengths:

- relatively easy to obtain a potentially diverse group of participants;
- cost effective
- can include specific details of type of participants desired.

Weaknesses:

- prone to (volunteer) bias
- limited to those shopping in the chosen supermarket at the time

Example for 1 mark

Only weirdoes will volunteer.

23. Write a one-tailed alternative hypothesis for this study. [3]

How the marks are awarded:

- 1 mark: one tailed hypothesis
- 1 mark: IV accurately operationalized (green AND black ink)
- 1 mark: DV accurately operationalized (# / score on words accurately remembered)

Examples for 3 marks

- There will be a significant difference in the number of words correctly remembered with more words printed in green ink being remembered than those printed in black ink
- More words presented for learning printed in green ink will be remembered than words presented in black ink.

Example for 2 marks

- More words presented for learning printed in green ink will be remembered (IV not fully operationalized)

- There will be a positive *correlation* between colour (green / black) [1] and number of words remembered [1] (wrong type of hypothesis)

Example for 1 mark

- Green ink will improve memory recall.

24* Explain how you would conduct a study using the laboratory experiment method to investigate the effect of colour on memory for a list of words. Justify your decisions as part of your explanation. You must refer to:

- the use of independent measures design or repeated measures design;
- how the variables are operationalized;
- at least two control features;
- level of data collected.

You should use your own experience of carrying out an experiment to inform your response. [15]

Annotate F / E / C / J / O with a number for each of the required features, e.g. C1, J4.

Annotation Page

	Feature	Explained	In context	Justified	Own Research
independent or repeated measures design;					
how the variables are operationalized;					
at least two control features;					
level of data collected.					

Level 4 = 12-15 marks

- All 4 required features are addressed
- Accurate knowledge of each **choice** is demonstrated (C)
- **Application** to this scenario is demonstrated in relation to each choice (A)
- Appropriate **justification** of all or most techniques is demonstrated (J)
- Response explicitly draws on the candidates own **research** (R)
- The answer has **sufficient coherence and detail** to allow for replication.

Level 3 = 8-11 marks = reasonable
Level 2 = 4-7 marks = limited
Level 1 = 1-3 marks = basic

25. State **one** open question that could provide additional information in the form of qualitative data for use **in this study**. [2]

How the marks are awarded
2 marks: Correct style of question, in context (context words: memory)
1 mark: Correct style of question
0 marks: Any question which refers to colour

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Example for 2 marks
Explain what kind of things case you the most problems with your memory?

26. Outline one strength of having some qualitative data **in this study** on memory. [3]

How the marks are awarded for each evaluation point:
- 1st mark: accurate strength / weakness is stated
- 2nd mark: and explained using a value judgement
- 3rd mark: in the context of this study (context words = 'memory', 'remember')

Examples of evaluation points
- Provides depth/detail/insight;
- enables the subjective concept to be investigated,
- increased validity due to participants being able to express their views/thoughts/feelings, etc.

27. State one question using a semantic differential scale that could be used **in this study**. [2]

How the marks are awarded
2 marks: Correct style of question, in context (context words: memory)
1 mark: Correct style of question
0 marks: Any question which refers to colour / uses a Likert scale

Example for 2 marks
Mark on this line where you consider yourself to be:

Forgetful ----------Strong memory recall

28. Explain one way in which this self-report on memory can be designed to increase the generalisability of the findings **from this study**. [3]

How the marks are awarded for each evaluation point:
- 1st mark: strategy
- 2nd mark: explained in enough detail to allow for replication
- 3rd mark: in the context of this study (context words = 'memory', 'remember')

Examples of strategies which could be raised
- increasing sample size;
- increasing sample diversity;
- use of random sampling;
- improving the ecological validity of the environment of the study;
- improving the mundane realism of the task, etc.

Section C: Data Analysis and Interpretation

28. Identify **two findings from the bar chart. [2]**

- 1 mark for recognising that the image was mainly perceived as a monkey or teapot
- 1 mark for recognising that the image was perceived as much as a monkey as a teapot.

0 marks for an identification of the raw data **which does not go beyond 1 column** (e.g. 2 people saw it as neither)

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

- 1 mark for explaining that data is discrete/categorical/ nominal. Accept qualitative.
- 1 mark for context / reference to this study (e.g. use of words such as duck, rabbit).

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

- 1 mark for median / mean
- 1 mark for an explanation of how this is calculated
- 1 mark for reference to this study (e.g. use of words such as duck, rabbit).

31. Explain how the research had ensured internal reliability in this study. [3]

- 1 mark for naming inter-rater reliability
- 1 mark for an explanation of how this occurs
- 1 mark for reference to this study (e.g. use of words such independent judges, ambiguous image, etc.)

Example for 3 marks
They ensured that there was inter-rater reliability [1] by getting more than one person to judge that the image could be seen [1] to be a duck and a rabbit [1].

32. Name and briefly describe the experimental design used in this study. [2]

- 1 mark for naming independent measures / groups design.
- 1 mark for knowing this means assigning different participants to each condition.

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

- 1 mark to state why it is appropriate
  - reduced demand characteristics
  - eliminating practice effect
  - no need for time delay between conditions
- Up to 2 marks for applying the understanding to the study

Example for 3 marks
Appropriate because it reduces demand characteristics [1] the participants may perceive the image the same way again [1] because they have perceived it this way once already (practice effect) [1].

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

1 mark for each of the following to a maximum of 3 marks:

- for an explicit judgement (it does, to a greater extent, etc.)
- for a reason based on the sample size
- for reference to the sample size (50)
- for a reason based on the sample being students
- for reference to the sample being students

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

Results

36. Give 2 reasons for this choice of test (chi squared) with reference to the study. [4]

Up to 2 marks for any of the following reasons;

- test of difference
- independent measures
- nominal data

A further 2 marks for relating the chosen criteria to features of the study

- the experiment investigated a difference (1) between perception of an image depending on how it had been primed (1).
- the design was independent measures (1) as each condition contained a different set of Ps (1)
- the data was nominal (1) as responses were categorized as either 'duck' or 'rabbit' (1).

37. Explain how the psychologist would determine the appropriate degrees of freedom (df) for this test. **[2]**

- 1 mark for stating that degrees of freedom can be calculated as (rows-1) x (column-1).
- 1 mark for stating that in this study, there is 1 degree of freedom.

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

1 mark for each of the following, to a maximum of 4 marks

- 1 mark for explaining the results are significant at p=0.05
- 1 mark for explaining why, i.e. observed value is greater than critical value.
- 1 mark for explaining that Chi squared requires the observed value to be greater than the critical value.
- 1 mark for explaining that 0.05 is the accepted level of significance for analysis.
- 1 mark for explaining that the results were not significant at the other more stringent levels of significance.

Example for 4 marks

The results are significant if the probability is set at p=0.05 [1] because the observed value of 3.80 is greater than critical value 2.71 [1], which is the way round needed for Chi squared [1]. p=0.05 is the usual level of probability set in Psychology [1]. The result would not be significant if you had set probability at 0.025 or 0.01 [1].

39. Explain is meant by a 'Type 1 error'. [2]

1st mark for

- False positive
- rejecting the null hypothesis
- accepting the alternative / experimental hypothesis

2nd mark for linking this to the veracity of the hypothesis

- rejecting the null hypothesis even though it is true
- accepting the alternative / experimental hypothesis even though it is false.

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

Appendix / appendices

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

1 mark for each of the following to a maximum of 3 marks:

- conducted to assess the research
- by reviewing the full work
- by psychologists not involved in the research
- by psychologists working in a similar field

Example for 3 marks

Peer review is a process after research has been conducted to assess the validity of it (1), before it is published. It is reviewed (1) by psychologists not involved in the research (1), but working in a similar field (1).

Paper 2 H567/02 Core Studies

Paper 2 General Comments

Multiple Responses/ Scattergun approach

Where a question asks for ONE / TWO, and more than this number are given,

- Mark the first one / two depending on the question,
- Add the lamda symbol into the text λ
- Ignore any further part of the answer which is also a strength / weakness.
- When marking on screen, this further part should be highlighted.

λ

Unacceptable answers

Do NOT accept answers which state that the research methodology is:

- More **accurate** – all research methods are accurate
- More **valid** (e.g. Q1) - unclear which type of validity is being referred to or why
- More **reliable** (e.g. Q1) - unclear which type of reliability is being referred to or why

Section A: Core Studies

1. The study by Loftus and Palmer on eye witness testimony involved the experimental method. Explain one strength and one weakness of the experimental method used in this study. [6]
This question was set as prep.

Do not accept
Points / explanations which refer to reliability / validity without further explanation or development.

1 mark for each of the following:

- Strength - It gives the researcher a high level of control over variables
- Explanation – to be able to show cause and effect
- Context - here all participants saw exactly the same film clips.
- Weakness - It is low in ecological validity / task lacks mundane realism
- Explanation – so the behaviour shown is not real
- Context - in real life, eyewitness testimony is not based on watching film clips and then completing questionnaires.

2. From the study by Loftus and Palmer on eye witness testimony, outline two ways in which the procedure was standardised. [4]
This question was set as prep.

1 mark to a maximum of 2 for each way the procedure was controlled:

- Same film
- Same question (apart from the critical word)

1 mark to a maximum of 2 for showing the concept of standardisation:

- Same
- All participants
- Each condition of the IV

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Example for 4 marks
All participants watched the same film clips. All participants were asked the same question (apart from the critical word).

3. Explain why Sperry's 'split brain' study is a natural / quasi experiment. [2]
This question was set as classwork.

1 mark for saying the IV is not directly manipulated by the researchers
1 mark for context – having a split brain or not / severed corpus callosum

Example for 2 marks
Sperry's study is a quasi/natural experiment because the independent variable – having a split brain or not [1] – was not directly manipulated by the researchers [1].
This question was set as classwork.

4. From Sperry's 'split brain' study into the psychological effects of hemisphere deconnection:
a. Describe **one** finding from the visual tests used in this study. [2]
b. Describe **one** finding from the composite word tests used in this study. [2]
This question was set as prep.

2 marks – An accurate and detailed finding
1 mark – Partial or vague finding outlined *e.g. compound words were recognised as 2 separate words*

4a. Examples for 2 marks
- Participants would only recognise stimuli if the stimuli was presented again to the same visual field.
- If participants were shown stimuli in the right visual field, but then shown the same stimuli to the left visual field, they would claim to have not seen it before.
- Information presented to the right visual field (left hemisphere) could be described in speech and writing (with the right hand).
- If the same information is presented to the left visual field (right hemisphere), the participant insisted he either did not see anything or that there was only a flash of light on the left side, that is, the information could not be described in speech or writing.
- However the participant could point with his left hand (controlled by the right hemisphere) to a matching picture / object presented among a collection of pictures / objects.
- The participant could draw what was presented to the left visual field with his left hand but reported that he had seen the word on the right visual field.

4b. Example for 2 marks
- When 2 words were presented at the same time such as key ring, the participant would write with their left hand the word 'key' (left hand goes to right hemisphere linked to left visual field) and say the word 'ring'.

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5. Outline **one** similarity between Sperry's 'split brain' study and Casey's study on the delay of gratification. [3]
This question was set as classwork.

How the marks are awarded
- 1 mark: Suitable similarity stated
- 1 mark: Detail from Sperry's study to support this similarity
- 1 mark: Detail from Casey's study to support this similarity

Examples of similarities
- Quasi / natural experiments
- Laboratory based
- Specific tasks to complete
- Small idiographic samples
- Ethnocentric
- Practical / physical responses
- Use of scientific equipment

Acceptable, but will be difficult to explain fully.
- Area: Biological
- Key Theme: Regions of the brain

Examples for 3 marks
- Both S&C had idiographic samples [1] S's sample was 11 American males who had had their corpus callosum severed [1]. Likewise, C's sample in the 2nd experiment was 29 Americans who had previously been in Casey's 1st experiment and Mischel's 3 previous studies [1].
- Both used complex scientific equipment. [1] Sperry used tachistoscope to present the material [1], Casey used fMRIs to collect data on the neural correlates of delay of gratification [1].
- Both studies were natural experiments but laboratory-based [1]. Sperry used a room in which the specialised equipment and materials / the tachistoscope was set up [1] and Casey used a room specially set up with a screen and equipment for the go/no go task and a medical laboratory containing a fMRI scanner [1].
- Participants in both studies were given specific physical / practical tasks to complete [1]. Sperry's participants had to complete a set of visual and tactile tasks [1] and Casey's participants had to complete a delay of gratification/impulse control task [1].

Example for 2 marks (point of comparison was not sufficiently explained)
Both S&C belong to the Biological area. S is Biological because it investigated the effects of hemisphere deconnection on behaviour. [1] C is Biological because it showed that the ventral striatum was over active and the pre-frontal cortex under-active in low delayers. [1]

Example for 1 mark (evidence from each study was insufficiently detailed)
Both used complex scientific equipment [1]. Sperry used projector, Casey used a laptop.

6. To what extent does the study by Casey's study change our understanding of regions of the brain? [3]
This question was set as classwork.

The three marks are available for:
- 1mark – a supported judgement
- 1mark - contextualisation from Casey's study
- 1mark - contextualisation from a previous piece of research, e.g. Sperry

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Example for 3 marks
To a greater extent [1]. Sperry identified the role of the corpus callosum and hemispheres in general [1], whereas Casey identified specific regions that play a role in self-control [1]

Example for 2 marks (conclusion cannot be supported by the evidence)
To a lesser extent. Sperry identified the role of the corpus callosum and hemispheres in general [1], whereas Casey identified specific regions that play a role in self-control [1]

Example for 1 mark (evidence unsupported conclusion)
To a greater extent [1]. Sperry identified the role of the corpus callosum and hemispheres, whereas Casey identified regions that play a role in self-control.

7. Freud claimed that Little Hans was experiencing the Oedipus complex. Describe the Oedipus complex in relation to this study. [4]
This question was set as prep.

Examples of descriptive points and illustrative examples which could be raised

- Point: Boy sub-consciously wants to sexually possess his mother
  - Hans Example: His dream about being married to his mother
- Point: Recognises there is a competition with father, so wants father out of the way
  - Hans Example: phobic of horses because they resembled his father.
- Point: because he fears that if his father finds out about this desire, he will be castrated.
  - Hans Example: fear of being bitten by a horse, symbolises his fear of castration.
- Point: conflict resolved by identifying with his father and adopting his behaviours.
  - Hans Example: plumber dream.

Example for 4 marks
Boy sub-consciously wants to sexually possess his mother (seen when Little Hans dreams about being married to his mother) [1]. He recognises there is a competition with his father. So boy wants his father out of the way (seen when Little Hans has a phobia of horses because they resembled his father) [1]. Boy fears that if his father finds out about this desire, he will be castrated (seen in Little Hans case study with his fear of being bitten by a horse, symbolises his fear of castration) [1]. Boy resolves this conflict by identifying with his father and adopting his values and behaviours (seen in Little Hans case study with his plumber dream) [1].

8. In Baron-Cohen et al.'s study into autism in adults, the Ps with autism were found to be unimpaired on two control tasks. Describe these two control tasks. [4]
This question was set as prep

1 mark to a maximum of 2 for naming the control tasks (gender recognition, basic emotions)
1 mark to a maximum of 2 for describing the control tasks

Example for 4 marks:
Gender Recognition Task [1] asked to identify the gender from photographs [1]. Basic Emotion Recognition Task [1] 6 full face photographs, asked to identify the correct emotion (from the Ekman categories).

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9. In Baron-Cohen et al.'s study into autism in adults, state one of the word pairs used in the Eyes task. [1]
This question was set as prep

Both words in the word pair from one of the following:

- Concerned – Unconcerned
- Attraction – Repulsion
- Relaxed – Worried
- Serious – Playful
- Interested – Disinterested
- Friendly – Hostile
- Sad – Happy
- Certain – Uncertain
- Reflective – Unreflective
- Cautious – Relaxed
- Calm – Anxious
- Dominant – Submissive
- Fantasizing – Noticing
- Observing – Daydreaming
- Ignoring – Noticing
- Nervous – Interested
- Flirtatious – Disinterested
- Sympathetic – Unsympathetic
- Decisive – Indecisive

10. From Baron-Cohen et al.'s study into autism in adults, identify the independent variable (IV) in the Eyes Task. [2]
This question was set as prep

- **1 mark for the variable:** type of person
- **1 mark for the variable being correctly operationalised:** Autism/Aspergers, Tourettes, and 'Normal'.

11. From Baron-Cohen et al.'s study into autism in adults, identify the dependent variable (DV) in the Eyes Task. [2]
This question was set as prep

- **1 mark for the variable:** performance on the eyes task
- **1 mark for the variable being correctly operationalised:** (scores) out of 25.

Section B: Areas, perspectives and debates

12. Outline **two** principles of the Cognitive area of psychology. [4]
This question was set as classwork.

2 principles should be raised. Each can attract 2 marks:
- 1 mark for an identification of a principle of the Cognitive area
- 1 mark for demonstrating how this affects behaviour / thoughts / emotions

0 marks for reference to:
- Reference to the computer model / input - process – output model without further explanation
- Brain / brain processes (Biological area)
- Environment (Social area)
- Examples of research in the area
- Evaluation points

Examples of principles which could be raised
- Behaviour is caused by thinking
- Humans are like information processors, with information being inputted, processed and outputted.
- The output or behaviour is due to the mental processing which occurs.
- Mental processing can be tested scientifically.

Examples of developed principles:
- Provides a reductionist explanation of behaviour as it claims that behaviour is caused [1] by thinking processes [1].
- Humans are like information processors, with information being inputted, processed and outputted [1]. The output or behaviour is due to the mental processing which occurs [1].

Examples of undeveloped principles:
- Supports the free will side of the debate
- Humans are like a computer
- Input-process-output
- Is reductionist

13. Outline how Bandura's Bobo doll study links to the Developmental area. Support your answer with evidence from this study. [3]
This question was set as classwork.

1 mark for each of the following to a maximum of 3 marks
- Knowledge of the principles of the Developmental area
- Evidence of the Bobo doll studies
- Good psychological knowledge and understanding
- Good application of psychological knowledge and understanding
- Explicit links of how the study supports / fits the features of the area

Example for 3 marks
Developmental area believes that behaviour is caused by level of development reached (age / experience) [1]. Children learn to be aggressive through imitation and observation [1]. Bandura shows that children learn through Social learning [1]. They pay attention to the role model, retain the information mentally, reproduce it, if they have adequate motivation [1].

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14. Outline **two** characteristics of scientific research. [4]
This question was set as classwork.

1 mark to a maximum of 2 for naming the characteristics (falsifiability, objectivity, empirical, systematic, quantitative, replicable, experimental, hypotheses)
1 mark to a maximum of 2 for outlining what each characteristic means

Examples for 2 marks

- Objectivity [1] is to the extent to which something is factual or not. If something is objective it is clear and undisputable [1], whereas subjectivity is where there is a lack of certainty and differences of opinion.
- Cause-and-effect [1] is investigated using experimental methods whereby one variable (IV) is predicted to have an effect on another (DV) [1].

15. Explain how one psychological study may be described as unscientific. [3]
This question was set as classwork.

Note: 'psychological study' can be a Core Study, a Key Study (for paper 3), or any identifiable piece of psychological research.

1 mark for each of the following to a maximum of 3 marks

- Description of the psychological study
- Knowledge of the characteristics of unscientific study (interpretation, subjective, qualitative, bias)
- Detail of the study which evidences its unscientific nature
- Good psychological knowledge and understanding
- Good application of psychological knowledge and understanding
- Explicit links of how the study is unscientific

Example for 3 marks
Freud's study of Little Hans is not scientific because subjective data collection techniques are used [1]. Little Han's Father collected information, often using leading questions, about his behaviour, fantasies and dreams and sending this information to Freud via letter [1]. This means the data is not empirically gathered which is a key feature of being scientific [1]

Example for 2 marks
Freud's case study of Little Hans is unscientific because it is based on opinions (Freud's and Little Hans' father) [1] rather than empirical, testable evidence [1].

Example for 1 mark
Little Hans' father may have been biased and reported information about his son that fits Freud's theory of psychosexual development which is not scientific [1].

16. Evaluate the usefulness of carrying out reductionist research. Support your answer with evidence from at least one core study. [6]
This question was discussed in class and set as prep.

Evaluate questions require BOTH a strength and a weakness to be given.

The answer requires:

- An understanding of reductionism
- An understanding of usefulness
- 2 evaluation points – one strength and one weakness

- Which are explained
- And substantiated by at least 1 core study
- With consistent use of psychological terminology
- Showing a line of reasoning / clear and logically structure
- In which everything is relevant

- No core study = capped at 3 marks.
- If the answer is completely study led = capped at 2 marks

Strengths: Reductionist research IS useful when:
- It progresses our understanding of human behaviour.
- It increases academic understanding of behaviour.
- It provides developments for therapies, interventions, preventative action or treatments.

Weaknesses: Reductionist research IS NOT useful when it is
- Not valid
- Not generalisable

Core Studies covered in class which are reductionist
- Sperry
- Casey
- Baron Cohen
- Bandura
- Milgram
- Loftus and Palmer

Example for 6 marks
Reductionist research is useful because it leads to the development of therapies / treatments and interventions of a variety of behaviours [1]. This is helpful because it can be used to change behaviour [1]. Loftus and Palmer showed that memory can be distorted by post event information. This is useful as the research can be used by the police to ensure that witness interviews do not include leading questions [1].

However, any intervention based on reductionist research will not be totally effective [1] as it fails to represent the true complexity of behaviour [1]. Bandura showed that children learn to be aggressive through Social Learning theory, but this does not consider that some children may be naturally aggressive [1].

17. Discuss the extent to which psychology supports the nature / nurture debate. Support your answer with evidence from core studies. [15]

	Knowledge and understanding (20%)	Contextualisation (20%)	Argument (20%)	Structure and coverage (20%)	Relevance (20%)
Level 4 = 12–15 marks	• Good • Relevant • Accurate	• Explicitly related to the question • Helpful use of examples (e.g. used to illustrate the explanations)	Conclusions given that summarise the issues	• Well developed • Line of reasoning • Logically structured • 3+ points / Range of issues covered	• Everything is relevant • 3+ times research is used to back up points
Level 3 = 8–11 marks	• Good • Relevant	Related to the question	Conclusions given that summarise the issues	Some structure. Lacks balance or development	• most of it is relevant • 2+ times research is used to back up points
Level 2 = 4–7 marks	Reasonable	Some parts are related to the question	3+ conclusions that summarise the issues	Some structure Less than 3 points raised	Limited evidence / support
Level 1 = 1-3 marks	Reasonable	Some parts are related to the question	2+ conclusions that summarise the issues	Not obvious Less than 3 points raised	Limited evidence / support

Example for 15 marks

The nature / nurture debate discusses whether behaviour is governed by nature (e.g. genes) and by nurture (e.g. environment, experiences etc.)

A strength of the nature stance is that this has useful applications. Understanding and identifying certain behaviours that are inherited or specific to the individual can help us to intervene. Casey showed that specific regions of the brain influence the ability to delay gratification, which helps society consider how the brain activity in these areas can be enhanced to help people to put off till later a desired thing. Taking the nature viewpoint allows people not to be blamed for their behaviour, which means that they are more likely to co-operate with any intervention designed to change their behaviour.

However a weakness of taking the nature stance is that discovering that certain behaviours are inherited (e.g. personality, intelligence) may not be helpful. It can lead to the assumption that these types of behaviour are difficult to change through the environment. This restricts the useful applications. Knowing that brain activity leads to behaviour seen in Sperry's study is not helpful as it may suggest that there is no point in trying to change yourself if the behaviour is pre-determined. This has implications on criminal behaviour. If your brain is causing the behaviour, can you be blamed for it and can it be solved?

Conversely, a strength of taking the nurture side is that there are significantly more practical and useful applications. This view has real life relevance as it focuses on real life social issues. It has relevance to the majority of people and helps our understanding on how human behaviour can be changed in a positive way. For example, Chaney showed that positive reinforcement will encourage children to be more compliant with their medication. This shows that it is very easy to adjust behaviour, by adjusting the situation rather than to change a person's biology.

However, it is impossible to study nature and nurture separately as they will always influence together. By ignoring biological causes, this reduces the validity of the debate. There is never a 100% rate of a certain behaviour being nurtured, therefore other factors must play a role. For example, Bandura showed an increase in imitation of aggressive behaviour in children after observing the same sex role model, but the results were not 100%, which suggests that for some children in was in their nature whether to be aggressive or not. The problem with this reductionism is that it will mean that any intervention based on just the nurture side will be effective, but not fully and for all people, so an interactionist approach should be taken.

In conclusion, Psychology tries to take an interactionist approach, but is often limited to the nurture viewpoint, as this leads to more methods to change behaviour and intervene.

Section C: Practical applications

18. Explain why this article can be viewed as being relevant to Biological Psychology. Support your answer with evidence from the source. [4]

- 2 marks for selection of key feature of the Biological area: Physiological processes, brain function, genetic basis, scientific, hormones, heredity, nervous system, twin studies, EEG, MRI, Nomothetic.
- 2 marks for application of the key feature to the article.

19. Outline one piece of psychological research that links to source 1 and justify how it relates to the above source. [6]

- Up to 5 marks for accurate and sustained details of the appropriate study, e.g. focus/aim/hypotheses, method, sample, materials/apparatus, findings, conclusions.
- 1 mark for justification of selecting the study
- Good understanding throughout of why the study can relate to the article
- There is a well-developed line of reasoning which is clear and logically structured.

Example for 6 marks

Sperry links as it is looking at how the regions of the brain influence behaviour, especially the different hemispheres. Sperry's aim was to study the functions of separate and independent hemispheres to see if the effects of hemisphere disconnection. His natural / quasi experiment had a naturally occurring IV – his sample of 11 had had a commisurotomy (severing the corpus callosum). The DV was the performance in visual and tactile tasks. The procedure was using a tachistoscope and information was presented on a screen from a projector behind it. There were objects given under the screen where they could not see their hands. The results were that objects presented in the RVF sent information to left hemisphere. Ps could say what they saw, describe it in speech or writing. Sperry concluded that the left hemisphere controls language and the right hemisphere controls drawing, maths, emotions but doesn't control language.

20. Identify one psychological issue raised by the source 1. Support your answer with evidence from the source. [3]

- 1 mark for identification of an appropriate issue
- 1 mark for explanation of the issue
- 1 mark for support from the source.

21. Explain how the Freud's case study of Little Hans could relate to this source. Support your answer with evidence from the source. [3]

- 1 -2 marks for selection of key features from the Little Hans case study: child, age 3, phobia of an animal, father, mother.
- 1 -2 marks for application of the key feature to the article.

22. Identify one psychological issue raised by the source 2. Support your answer with evidence from the source. [3]

- 1 mark for identification of an appropriate issue
- 1 mark for explanation of the issue
- 1 mark for support from the source.

23. Use your psychological knowledge to suggest a way to manage Abel's phobia. [6]

- 1 mark for application to Abel / phobias
- 5 marks for accuracy / detail of implementation: psychoanalysis, dream analysis, word/free association, T.A.T., Rorschach inkblots, making the unconscious conscious.

Example for 6 marks:

- What are going to do? Get rid of the phobia using systematic desensitization.
- What type of strategy is it? Therapy because it cures you
- How will you do it? Create a hierarchy of fear, work through the fear from least to greatest
- When? The timeline is to work through the hierarchy of fears from the least to the greatest, probably in up to 10 sessions
- Who? Therapist with Abel
- Where? In vitro, with the therapist and Abel starting the therapy in a therapists' room, then going into normal life where there are dogs
- Why? Relearn a new association between dogs and being relaxed / calm.

24. Evaluate your strategy to manage Abel's phobia. [10]

	Understanding 20%	**Language 20%**	**Structure 20%**	**Range 20%**	**Supported by evidence 20%**
Level 4: 9– 10 marks	Coherently presented with clear understanding	Good	well-developed line of reasoning which is clear and logically structured	2 or more relevant points	In context and supported by relevant evidence
Level 3: 7 – 8 marks	Mainly coherently presented with reasonable understanding	Reasonable	line of reasoning presented with some structure	2 or more mainly relevant points	Mainly in context and supported by some relevant evidence
Level 2: 4 – 6 marks	Limited	Limited	Lacks clear structure	2 or less or 4 or more unsupported points raised	Occasionally in context and supported by relevant evidence
Level 1: 1 – 3 marks	Basic	Basic	Lacks clear structure	2 or less or 4 or more unsupported points raised	Not in context. Generic responses which could be used in a range of different answers.

Examples of evaluative points:

- Cost: Financial implications
- Resources available
- Co-operation between the agencies/individuals involved
- Time constraints
- Accessibility
- Travel implications
- Ethics

Level 4: 8-10 marks the evaluation must "go further" & "do something more": There are 3 ways of doing this:

- Compare/contrast
- "So what?" – "The consequences of this are…."
- Take the unexpected view – Weaknesses often have strengths

Examples of developed evaluation points

- Systematic desensitization for Abel will not be quick (point), as it may take up to 10 weekly sessions (explanation) to run through his hierarchy of fear (context). This is a problem as this amount of time may mean that Abel or his family give up on it and become treatment non-compliant by not turning up (conclusion) and the therapy will not be successful.
- However, there is very little cost to Abel and his family (point) because SD is available on the NHS (explanation) which is beneficial as it is showing that it is effective (conclusion) as well as being accessible for Abel to use to get rid of his phobia (context).
- Ethically, it is a much better strategy than flooding (point), as it protects Abel from the harm (explanation) of sudden and overwhelming exposure to dogs (context) and

because it is less overwhelming, it is both ethical and more likely to be followed until his phobia is extinguished (conclusion).