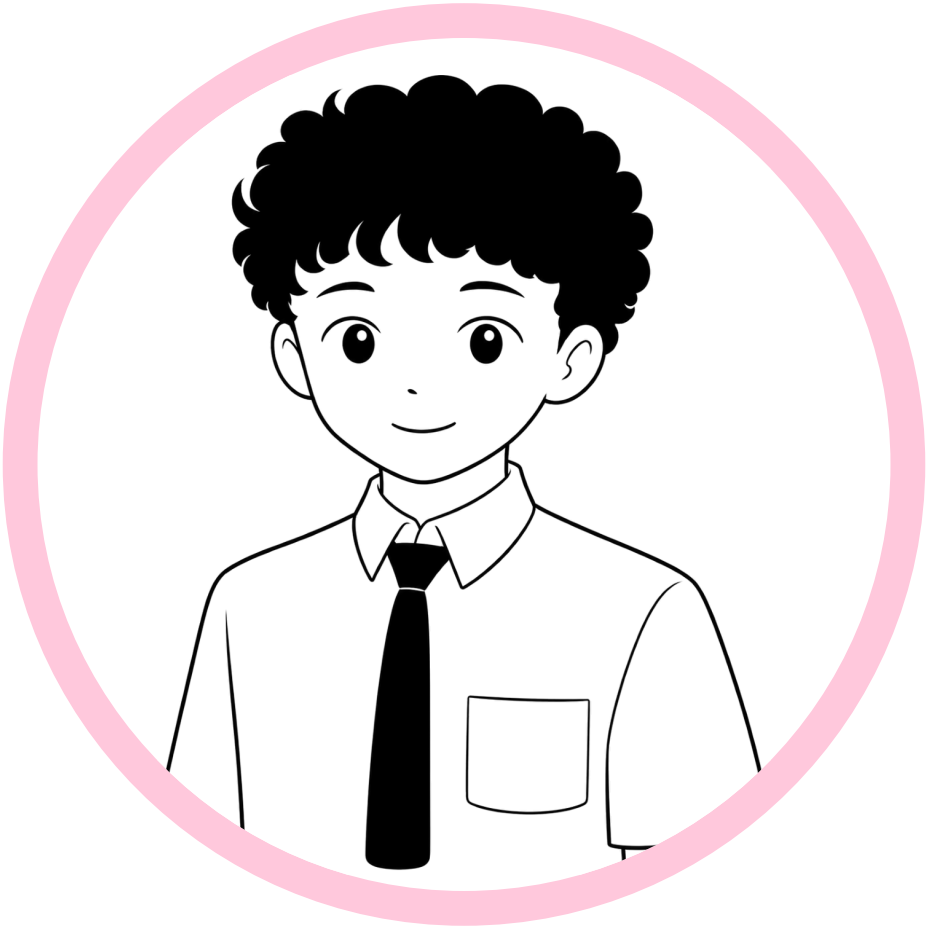
AQA A-LEVEL PSYCHOLOGY · 7182

PSYCHOLOGY



EXAM QUESTION PACK

3.2.3.1 ETHICS

SCORE	PERCENTAGE
/295	%

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Q1.

A researcher was interested in the relationship between the number of hours a course was taught using a computer program and the satisfaction of the students on the course.

As part of his research he conducted a pilot study as follows. A topic from a business studies course was divided into 10 equal one-hour sessions.

Eleven students who were matched for their high level of interest in business studies took part in the study.

All 11 students completed all 10 hours of the topic. They were taught either completely online, with a combination of online teaching and classroom teaching, or just in a classroom.

Each student was allocated a letter, from A to K randomly. This determined the number of hours they studied online and the number of hours they studied in a classroom. The combinations are shown in **Table 1**.

Table 1: The numbers of hours each student (labelled A – K) studied the topic online and in a classroom with a teacher

	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Number of online hours	10	9	8	7	6	5	4	3	2	1	0
Number of classroom hours	0	1	2	3	4	5	6	7	8	9	10

(a) Explain why it was important to match the students on their high level of interest in business studies.

_____

_____

_____

_____

(2)

(b) Suggest **one** other variable for which the researcher should have matched the students. Explain how this might have affected the satisfaction scores if it was not controlled.

_____

_____

_____

_____

(2)

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(c) Outline **one** benefit of allocating the students randomly to the different numbers of online hours and classroom hours as seen in **Table 1**.

(2)

(d) The sample used in this pilot study was an opportunity sample. Briefly explain how using a stratified sample when the final study is conducted might be an improvement to the design.

(3)

(e) The researcher designed a questionnaire to collect data from the students about how satisfied they felt when they had completed the course.
Give an example of an appropriate question that the researcher might use to collect qualitative data on the questionnaire.

(1)

(f) Briefly explain **one** problem the researcher might have in analysing the qualitative data collected from the questionnaires.

(2)

(g) Outline **one** ethical issue that should have been taken into account when carrying out the questionnaire.

(1)

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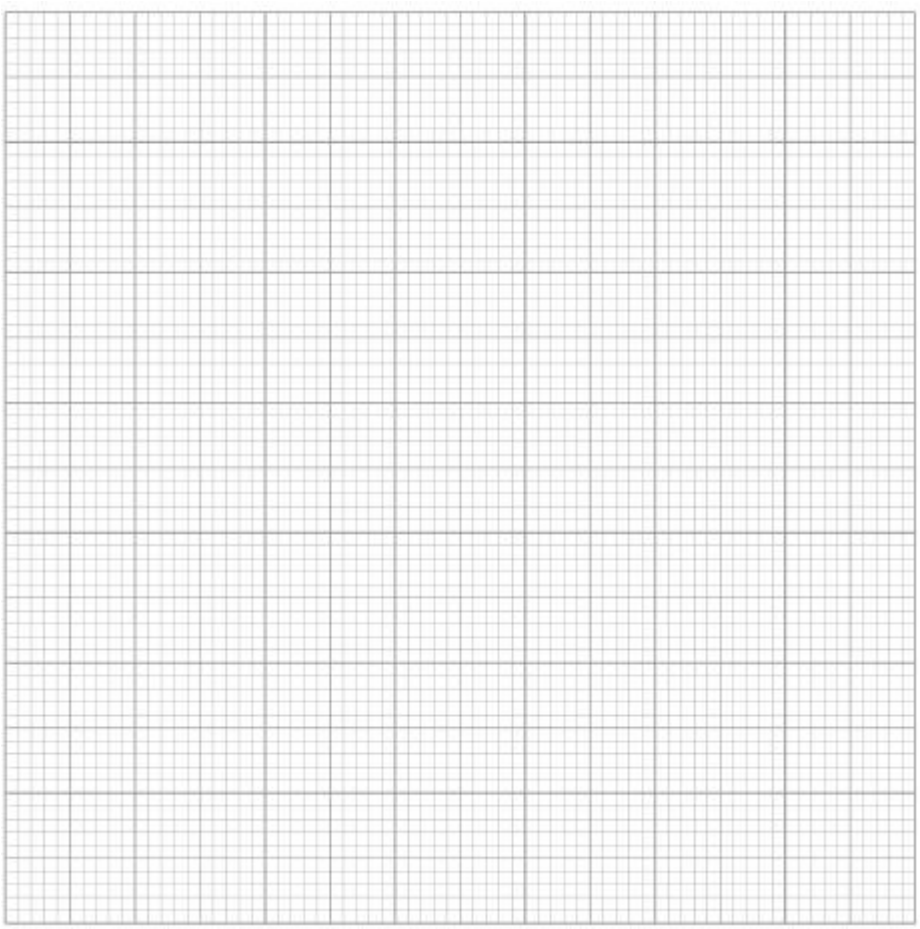
In order to analyse all the responses to the questionnaire, each response was given a score by the researcher. The maximum score on the questionnaire was 20, where a score of 0 meant dissatisfied and a score of 20 meant very satisfied.

The following data was collected by the researcher.

Table 2: The numbers of hours each student (labelled A – K) studied the topic online and the satisfaction scores of each student.

	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Number of online hours	10	9	8	7	6	5	4	3	2	1	0
Satisfaction scores	5	6	8	7	10	12	13	15	17	19	19

(h) Using the data in **Table 2** and the graph paper provided below, draw an appropriate scattergram. Fully label your display.



(4)

(i) What conclusion might the researcher draw, based on the results of the study?

_____

_____

_____

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(2)

(j) The researcher looked at the mode and median satisfaction scores of the students. Calculate these two descriptive statistics.

(2)

(k) Explain why the median would be more suitable than the mode to represent the average score for satisfaction for the students.

(2)

(l) Another researcher looked at the data for the satisfaction scores and commented that they suggested a negative skew in the data.

Look at the following sets of descriptive statistics from a different study. Which of the sets (A or B or C) would indicate a negative skew in the distribution of the data?

Shade **one** box only.

A Mean: 7.3, median: 7.5, mode: 7.0 ⬭

B Mean: 7.3, median: 10.5, mode: 16 ⬭

C Mean: 7.3, median: 6.5, mode: 5 ⬭

(1)

(Total 24 marks)

Q2.

A psychologist decided to conduct an experiment to investigate the effect of watching horror films before going to bed.

A volunteer sample of 50 university students consented to take part in the experiment.

The 50 students were randomly split into two groups. **Group 1** watched a horror film before going to bed each night for the first week then a romantic comedy before going to bed each night for the second week. **Group 2** watched the romantic comedy in the first week and the horror film in the second week.

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When the students woke up each morning, each student received a text message that asked if they had had a nightmare during the night. They could respond ‘yes’ or ‘no’.

(a) Write a brief consent form that would have been suitable for use in this experiment.

The consent form should:

- include some detail of what participants might expect to happen
- refer to ethical issues
- be in an appropriate format / style.

(6)

(b) The psychologist proposed a directional hypothesis.

Write a directional hypothesis for this experiment.

(3)

(c) The psychologist used a repeated measures design in this experiment.

Explain why it was important to use a repeated measures design in this case.

(2)

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(d) The psychologist used counterbalancing in this experiment.

Explain why it was appropriate to use counterbalancing in this experiment.

(2)

(e) Explain how the psychologist could have randomly split the sample of 50 students into the two groups.

(3)

The psychologist collated the responses of all the participants over the two-week period and calculated the mean and standard deviation for each condition.

Mean number of nightmares reported and the standard deviation for each condition

	Mean number of nightmares in 7 days	**Standard deviation**
Horror films	2.18	1.48
Romantic comedies	0.30	0.61

(f) What do the mean **and** standard deviation values in the table above suggest about the effect of the type of film watched on the occurrence of nightmares? Justify your answer.

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(4)

(g) The psychologist found that the difference in the number of nightmares reported in the two conditions was significant at $p<0.05$.

Explain what is meant by 'significant at $p<0.05$' in the context of this experiment.

(2)

(h) The psychologist was concerned about the validity of the experiment.

Suggest **one** possible modification to the design of the experiment and explain how this might improve validity.

(3)

(Total 25 marks)

Q3.

Discuss **one or more** ethical implications of research in psychology. Refer to **at least one** topic you have studied in psychology in your answer.

(Total 8 marks)

Q4.

Researchers wished to study the link between attachment and parasocial relationships. They surveyed a stratified sample of 100 18-year-old students from four different schools. Some schools had a large number of students and others had a smaller number of students. The students were asked questions about their childhood, their feelings towards celebrities and about their friendships at school.

(a) Explain how the researchers could have obtained a stratified sample from the four different schools.

(4)

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(b) At the end of the survey, researchers wished to treat the students ethically. They used the following statement in their debriefing:

'Thank you for taking part in the survey. Your data will be very useful. Have you any questions?'

Suggest **two** additional points that could be added to the debriefing statement to better ensure ethical treatment of the students.

(4)

(c) Discuss the attachment theory explanation for parasocial relationships. Refer to the likely findings of the study above in your answer.

(8)

(Total 16 marks)

Q5.

Researchers wished to study the link between androgyny and psychological health. They surveyed a stratified sample of 100 18-year-old students from four different schools. Some schools had a large number of students and others had a smaller number of students. The students were asked to rate themselves on an androgyny scale and then answered a series of questions. The questions focused on students' self-esteem and how they felt about their relationships with others.

(a) Explain how the researchers could have obtained a stratified sample from the four different schools.

(4)

(b) At the end of the survey, the researchers wished to treat the students ethically. They used the following statement in their debriefing:

'Thank you for taking part in the survey. Your data will be very useful. Have you any questions?'

Suggest **two** additional points that could be added to the debriefing statement to better ensure ethical treatment of the students.

(4)

(c) Discuss Bem's research into androgyny. Refer to the likely findings of the study above in your answer.

(8)

(Total 16 marks)

Q6.

Researchers wished to study the effects of scaffolding on learning. They surveyed a stratified sample of 100 18-year-old students from four different schools. Some schools had a large number of students and others had a smaller number of students. The students were asked questions about how they learn, different teaching and classroom activities, and what helps them learn.

(a) Explain how the researchers could have obtained a stratified sample from the four different schools.

(4)

(b) At the end of the survey, the researchers wished to treat the students ethically. They

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used the following statement in their debriefing:

'Thank you for taking part in the survey. Your data will be very useful. Have you any questions?'

Suggest **two** additional points that could be added to the debriefing statement to better ensure ethical treatment of the students.

(4)

(c) Discuss Vygotsky's theory of cognitive development. Refer to the likely findings of the study above in your answer.

(8)

(Total 16 marks)

Q7.

Zina witnessed a violent incident. The attacker pulled out a knife and threatened the victim. Zina was close to the attacker and was very frightened and anxious. Her friend, Amanda, was further away and less anxious. The police took witness statements from both Zina and Amanda. Their statements were very different.

(a) Using your knowledge of research into the effects of anxiety on eye-witness testimony, explain why Zina's and Amanda's statements are different.

(4)

(b) A psychologist decided to interview both Zina and Amanda five months later to see if they could still remember the same level of detail about the incident.

Explain **one** ethical issue the psychologist must consider before interviewing Zina and Amanda.

(2)

(Total 6 marks)

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Q8.

A researcher wanted to compare the effectiveness of two therapies for young offenders who had been identified as having anger management issues. Offenders, who were all sentenced to two years in a Young Offenders' Institution, were asked to volunteer to take part in an anger management programme. Fifty volunteers were randomly allocated to Group 1 (Therapy A) or Group 2 (Therapy B).

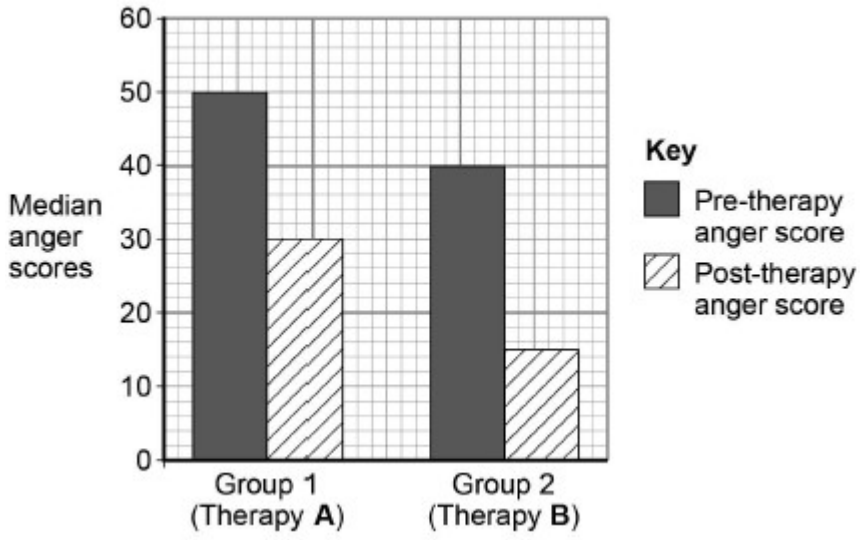
Each participant's anger was assessed before and after therapy. For the **pre-therapy anger score** they completed an Anger Scale questionnaire and their responses were scored. A high score indicated extreme anger and a low score indicated mild anger.

For the next eight weeks, participants attended weekly sessions for either Therapy A or Therapy B.

For the **post-therapy anger score**, at the end of the treatment period, participants completed the same Anger Scale questionnaire.

The data obtained are shown in the figure below.

Median anger scores before and after therapy for Group 1 (Therapy A) and Group 2 (Therapy B)



(a) The researcher used volunteers for this study. Outline **one** disadvantage of using volunteers to take part in this study.

(2)

(b) Explain how the researcher could allocate the volunteers randomly to the conditions

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of the experiment.

(3)

(c) Write a suitable hypothesis for this study.

(3)

(d) What do the data in the figure above seem to suggest?

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(3)

(e) Explain how the study might be improved by using a matched pairs design.

(4)

(f) Outline **one** ethical issue that might have occurred in this study and explain how the researcher could have dealt with this issue.

(4)

(g) Give **one** disadvantage of using median values as seen in the figure above to represent the anger scores of participants.

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(1)

(h) Explain how demand characteristics might have occurred in this study.

(2)

(i) The researcher used a questionnaire to assess the anger scores of the offenders. Briefly discuss **one** strength of using questionnaires in research.

(Total 24 marks)

Q9.

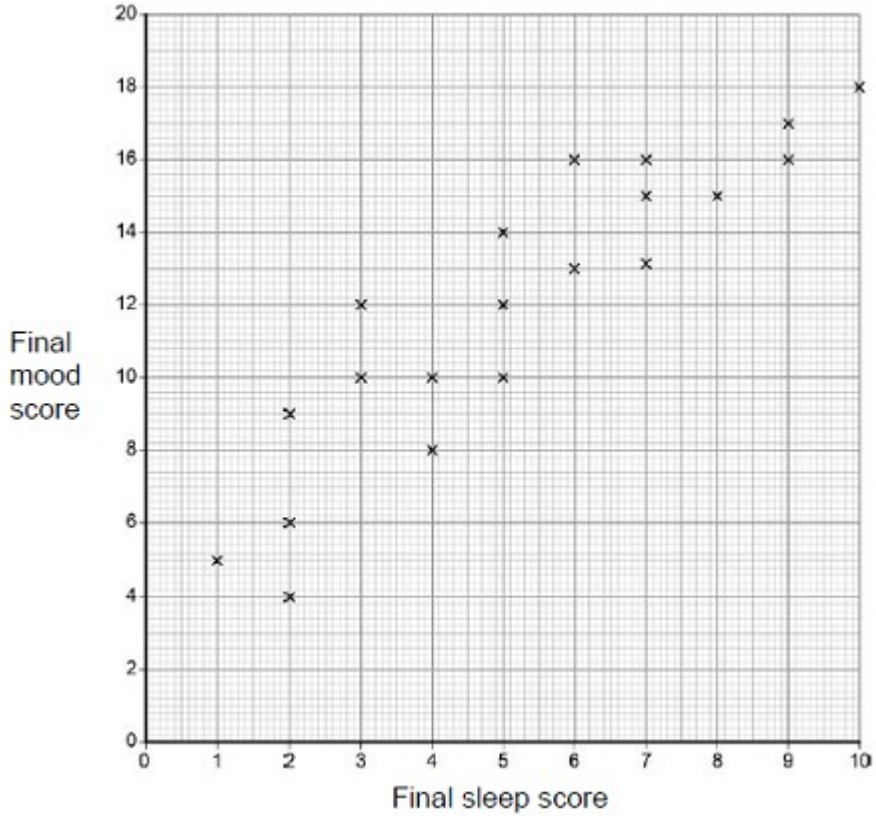
Read the item and then answer the questions that follow.

Twenty depressed patients were treated using cognitive behavioural therapy. Over the course of the six-week treatment, each patient's mood was monitored every week using a self-report mood scale (where a score of 20 = extremely positive mood and a score of 0 = extremely negative mood). Each week they also completed a quality of sleep questionnaire which was scored from 10 = excellent sleep to 0 = very poor sleep.

At the end of the study the researchers correlated each patient's final mood score with his or her final sleep score. The results are shown in the graph below.

Scattergram to show the relationship between final mood scores and final sleep scores for 20 patients at the end of therapy

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(a) Outline the type of relationship shown in the graph above and suggest why it would not be appropriate for the researchers to conclude that better sleep improves mood.

(2)

(b) Outline **one** way in which the researchers should have dealt with ethical issues in this study.

(2)

(c) The sleep questionnaire used by the researchers had not been checked to see whether or not it was a reliable measure of sleep quality.

Explain how this study could be modified by checking the sleep questionnaire for test-retest reliability.

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(4)

(Total 8 marks)

Q10.

Read the item and then answer the question that follows.

> The psychologist focused on fluency in spoken communication in her study. Other research has investigated sex differences in non-verbal behaviours such as body language and gestures.

Design an observation study to investigate sex differences in non-verbal behaviour of males and females when they are giving a presentation to an audience.

In your answer you should provide details of:

- the task for the participants
- the behavioural categories to be used and how the data will be recorded
- how reliability of the data collection might be established
- ethical issues to be considered.

(Total 12 marks)

Q11.

Imagine you have been asked to design a study to investigate possible gender differences in card sorting behaviours. You decide you will ask participants to sort a shuffled pack of playing cards into their suits of hearts, clubs, diamonds and spades. You decide you will time the participants as they do this using a stop watch.

Discuss the following aspects of this investigation:

- with reference to the card sorting task, explain how you would ensure that this is made the same task for all participants
- **one** methodological issue you should take into account when obtaining suitable participants for this study and explain how you would deal with this issue
- how you would ensure that the experience of your participants is ethical.

(Total 9 marks)

Q12.

Read the item and then answer the questions that follow.

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Dr Grant and Dr Austin both study people with depression. Dr Grant carries out experimental research to investigate the brain chemistry of people with depression. Dr Austin carries out unstructured interviews with people with depression to find out about their symptoms and various aspects of their lives, including their general behaviour and their relationships.

(a) Referring to the item above, explain what is meant by holism and reductionism.

(4)

(b) Suggest **one** way in which Dr Austin might take account of ethical considerations when carrying out the interviews.

(1)

(Total 5 marks)

Q13.

A psychologist wanted to investigate the effects of age of adoption on aggressive behaviour. He compared children who had been adopted before the age of two with children who had been adopted after the age of two. The children were observed in their school playground when they were six years old.

(a) Suggest **two** operationalised behavioural categories the psychologist could use in his observation of aggressive behaviour. Explain how the psychologist could have carried out this observation.

Behavioural Category 1 _____

_____

Behavioural Category 2 _____

_____

Explanation of how the observation could have been carried out _____

_____

_____

_____

_____

(4)

(b) Explain **one** ethical issue the psychologist would have needed to consider when carrying out this research. How could the psychologist have dealt with this issue?

_____

_____

_____

_____

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Extra space _____

(4)

The psychologist wanted to investigate how aggressive the children were when they were at home. He interviewed a sample of their parents to investigate this.

(c) Explain why using interviews might be better than using questionnaires in this situation.

Extra space _____

(4)

(Total 12 marks)

Q14.

A psychologist used an independent groups design to investigate whether or not a cognitive interview was more effective than a standard interview, in recalling information. For this experiment, participants were recruited from an advertisement placed in a local

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paper. The advertisement informed the participants that they would be watching a film of a violent crime and that they would be interviewed about the content by a male police officer.

The psychologist compared the mean number of items recalled in the cognitive interview with the mean number recalled in the standard interview.

(a) Name the sampling technique used in this experiment.

(1)

(b) Suggest **one** limitation of using this sampling technique.

(2)

(c) Identify the independent variable **and** the dependent variable in this experiment.

Independent variable _____

Dependent variable _____

(2)

(d) Explain **one** advantage of using an independent groups design for this experiment.

(2)

(e) Discuss whether or not the psychologist showed an awareness of the British Psychological Society (BPS) Code of Ethics when recruiting participants for this experiment.

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(3)

(Total 10 marks)

Q15.

A psychologist carried out a research study to investigate the effects of institutional care. To do this, she constructed a questionnaire to use with 100 adults who had spent some time in an institution when they were children.

She also carried out interviews with ten of the adults.

(a) For this study, explain **one** advantage of collecting information using a questionnaire.

(3)

(b) In this study, the psychologist collected some qualitative data. Explain what is meant by qualitative data.

(2)

(c) Write **one** suitable question that could be used in the interviews to produce qualitative data.

(2)

(d) Identify **two** ethical issues that the psychologist would need to consider in this research.

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Explain how the psychologist could deal with **one** of these issues.

Ethical Issue 1 _____

_____

Ethical Issue 2 _____

_____

How the psychologist could deal with one of these issues _____

_____

_____

_____

_____

_____

_____

(5)

(Total 12 marks)

Q16.

A psychologist wanted to investigate whether or not people are influenced by the opinions of others.

The psychologist selected 100 pupils from a secondary school to be participants in the study.

The psychologist showed participants a cake which weighed 350 grams. The task for the participants was to estimate the weight of the cake in grams.

Participants were allocated randomly to one of two groups.

In **Group A**, 50 participants were asked individually to estimate the weight of the cake. The psychologist gave each participant a blank piece of paper on which to write his or her estimate.

In **Group B**, the other 50 participants were asked individually to estimate the weight of the cake. This time, the psychologist gave each participant a piece of paper which contained a list of five weights (493 grams, 512 grams, 502 grams, 485 grams and 601 grams). The participants were told that these were the estimates given by five people and that they should write their own estimate below these other estimates.

The psychologist expected that participants in **Group B** would be influenced by the five other estimates. She expected that they would write down a weight similar to the five estimates on the piece of paper.

The median estimates for the weight of the cake are shown in the table below.

The median estimate for the weight of the cake (in grams) in Group A and Group B

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	Group A Estimate written on a blank piece of paper	Group B Estimate written below the list of five other estimates
The median estimate of the weight of the cake (in grams)	348	510

(a) What might the psychologist conclude from the median scores shown in the table above?
Explain your answer.

(2)

(b) Identify the independent variable and the dependent variable in this study.

Independent variable _____

Dependent variable _____

(2)

(c) Explain how stratified sampling might have been used to select the participants in this study.

(3)

(d) (i) The psychologist allocated the participants randomly to the two groups that were used in this study.

Explain how the psychologist could have allocated the participants randomly

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to the two groups.

(2)

(d) (ii) Briefly explain **one** reason why random allocation of participants is important.

(2)

(e) The psychologist used an independent groups design in this study.

Explain **one** reason why it would not have been appropriate to use a repeated measures design in this study.

(2)

(f) Identify and briefly explain **one** ethical issue that the psychologist should have considered in this study.

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(3)

(g) (i) After the study, the psychologist interviewed some of the participants in **Group B**.

Outline **one** type of interview that she might have conducted.

_____

_____

_____

_____

_____

_____

(2)

(g) (ii) Explain **one** limitation of the type of interview that you have outlined in your answer to (g)(i).

_____

_____

_____

_____

_____

_____

(2)

(Total 20 marks)

Q17.

Psychologists sometimes use case studies to study children. One example was of a boy who was discovered at the age of six. He had been kept in a darkened room and had had almost no social contact with people.

(a) How could a psychologist maintain confidentiality when reporting a case study?

_____

_____

_____

_____

(2)

(b) Psychologists use a range of techniques to gather information in case studies.

Outline **one** technique which the psychologist could use in this case study.

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(2)

(c) Apart from ethical issues, explain **one or more** limitations of using case studies.

Extra space

(4)

(Total 8 marks)

Q18.

A psychologist assessed the aggressive behaviour of 100 five-year-old children who were starting school. The children had attended day care for at least 20 hours a week. Fifty of the children had attended day nurseries. The other fifty children had been looked after by childminders. The children who attended the day nurseries were more aggressive than the children who had been looked after by childminders.

(a) Explain why this is an example of a natural experiment.

(2)

(b) Suggest **one** way in which the psychologist could have measured the children's

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aggressive behaviour.

_____

_____

_____

_____

(2)

(c) Explain **two** ethical issues which the psychologist should have considered when carrying out this research.

Issue 1 _____

_____

_____

_____

Extra space _____

_____

Issue 2 _____

_____

_____

_____

Extra space _____

_____

(4)

(Total 8 marks)

Q19.

Questionnaires have been used by psychologists to investigate stress.

Explain **one** possible ethical issue that might arise when using questionnaires in this area of psychology.

_____

_____

_____

_____

(Total 2 marks)

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Q20.

A psychologist investigated the relationship between type of attachment in childhood and success in later adult relationships. He published a questionnaire in a local newspaper. The participants were people who read the newspaper, filled in the questionnaire and sent it to the psychologist. Participants' answers to the questions were used to decide whether they had been securely or insecurely attached as children. The participants who were identified as securely attached children were more likely to have successful adult relationships than those identified as insecurely attached children.

(a) Identify the sampling technique used in this study. Outline **one** weakness of using this sampling method.

(3)

(b) Identify **one** ethical issue the researcher would need to consider in this research. Suggest how the researcher could deal with this ethical issue.

(3)

(Total 6 marks)

Q21.

A case study was carried out on Peter whose brain was damaged in a motorcycle accident. Psychologists tested how many numbers he could hold in his short-term memory. They did this by reading him lists of numbers and asking him to recall the numbers immediately in the right order. He could recall a maximum of two items. The psychologists found that his long-term memory was normal.

(a) How was Peter's short-term memory after the accident different from most adults' short-term memory?

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(2)

(b) Does this case study support the multi-store model of memory? Explain your answer.

Extra space

(4)

(c) Identify **one** ethical issue associated with this case study of Peter. Suggest how psychologists could deal with this ethical issue.

Ethical issue

How psychologists could deal with this ethical issue

(4)

(Total 10 marks)

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Q22.

A psychologist was interested in testing a new treatment for people with eating disorders. She put up adverts in several London clinics to recruit participants. Thirty people came forward and they were all given a structured interview by a trained therapist. The therapist then calculated a numerical score for each participant as a measure of their current functioning, where 50 indicates excellent, healthy functioning and zero indicates failure to function adequately. The psychologist then randomly allocated half the participants to a treatment group and half to a no-treatment group. After eight weeks, each participant was re-assessed using a structured interview conducted by the same trained therapist, and given a new numerical score. The trained therapist did not know which participants had been in either group.

For each participant, the psychologist calculated an improvement score by subtracting the score at the start of the study from the score after eight weeks. The greater the number, the better the improvement.

Median and range of improvement scores for the treatment group and for the no-treatment group

	Treatment group	**No–treatment group**
Median	10.9	2.7
Range	2.1	0.8

(a) With reference to the data in the table above, outline what the findings of this investigation seem to show about the effectiveness of the treatment.

(2)

(b) The psychologist used a statistical test to find out whether there was a significant difference in improvement between the 'treatment' and 'no-treatment' groups. She found a significant difference at the 5% level for a one-tailed test ($p \leq 0.05$).

Identify an appropriate statistical test for analysing the participants' scores. Explain why it would be a suitable test to use in this study.

(4)

(c) What is the likelihood of the psychologist having made a Type 1 error in this study? Explain your answer.

(2)

(d) The psychologist assumed that improvements in the treatment group were a direct result of the new type of treatment. Suggest **two** other reasons why people in the treatment group might have improved.

(4)

(e) The psychologist could have used self-report questionnaires to assess the participants instead of using interviews with the therapist. Explain **one** advantage and **one** disadvantage of using self-report questionnaires in this study rather than interviews.

(4)

(f) The psychologist needed to obtain informed consent from her participants. Write a brief consent form which would be suitable for this study. You should include some details of what participants could expect to happen in the study and how they would

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be protected.

(5)

(g) What is meant by reliability? Explain how the reliability of the scores in this study could be checked.

(4)

(h) The psychologist noticed that female and male participants seemed to have responded rather differently to the treatment.

She decided to test the following hypothesis:

> Female patients with an eating disorder will show greater improvement in their symptoms after treatment with the new therapy than male patients.

She used a new set of participants and, this time, used self-report questionnaires instead of interviews with a therapist.

Imagine that you are the psychologist and are writing up the report of the study. Write an appropriate methods section which includes reasonable detail of design, participants, materials and procedure. Make sure that there is enough detail to allow another researcher to carry out this study in the future.

(10)

(Total 35 marks)

Q23.

Psychologists have carried out research into the use of cognitive interviews. One possible ethical issue which might arise during this research is protection of participants from harm. Explain how psychologists could deal with this ethical issue.

_____

_____

_____

_____

_____

_____

(Total 3 marks)

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