



Oxford Cambridge and RSA

Monday 13 May 2019 – Afternoon

AS Level Psychology

H167/01 Research methods

Time allowed: 1 hour 30 minutes



You must have:

- a scientific or graphical calculator
- a ruler (cm/mm)



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s)

Last name

INSTRUCTIONS

- Use black ink.
- Answer **all** the questions.
- Write your answer to each question in the space provided. If additional space is required, use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.

INFORMATION

- The total mark for this paper is **75**.
- The marks for each question are shown in brackets [].
- Quality of extended response will be assessed in questions marked with an asterisk (*).
- This document consists of **16** pages.

2

SECTION A – Multiple choice

Answer **all** the questions. You should put the letter of the correct answer in the box provided.

- 1 What is the name given when a researcher becomes a member of a group so they can study their behaviour more closely?

A naturalistic observation
B overt observation
C participant observation
D unstructured observation

Your answer

[1]

- 2 What type of experiment is conducted in a real life setting?

A field
B lab
C natural
D quasi

Your answer

[1]

- 3 What type of interview involves **no** preparation of questions beforehand?

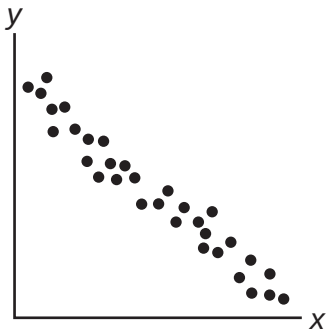
A open
B semi-structured
C structured
D unstructured

Your answer

[1]

3

4 What can be said about the variables displayed in the scatter diagram below?



- A as one increases the other decreases
- B as one increases the other increases
- C they are significantly different
- D they are not significantly different

Your answer

[1]

5 What does the alternative hypothesis in an experiment state?

- A there will be an effect of the IV on the DV
- B there will not be an effect of the IV on the DV
- C there will be a relationship between the IV and the DV
- D there will not be a relationship between the IV and the DV

Your answer

[1]

6 Which of these indicates the research is significant at the 1% level of probability?

- A $p < 1.0$
- B $p < 0.1$
- C $p < 0.01$
- D $p > 0.01$

Your answer

[1]

4

7 What is the name given to the technique that allows verbal or visual information/data to be converted into numerical data for the purpose of analysis?

- A coding frame
- B classifying frame
- C qualitative frame
- D quantifying frame

Your answer

[1]

8 Which of these is a type of sampling technique in which participants provide the names of other people who could also take part in the research?

- A random
- B snowball
- C systematic
- D self-selected

Your answer

[1]

9 What type of data is obtained from other (often already existing) sources, rather than directly by the researchers?

- A nominal
- B primary
- C secondary
- D qualitative

Your answer

[1]

10 In which type of distribution is the mean, median and mode all the same score?

- A a negatively skewed distribution
- B a normal distribution
- C a positively skewed distribution
- D an asymmetrical distribution

Your answer

[1]

5

11 Why is the Casey et al. study (neural correlates of the delay of gratification) regarded as a quasi experiment?

- A because an MRI brain scanner was used to measure biological differences
- B because the classification of participants as 'high delayers' or 'low delayers' already existed
- C because the participants were male or female
- D because there was no independent variable

Your answer

[1]

12 Which of these was **not** one of the independent variables in Bandura et al.'s study of the imitation of aggression?

- A sex of the bobo doll
- B sex of the model
- C sex of the children
- D type of behaviour exhibited by the model

Your answer

[1]

13 What was the dependent variable in Chaney et al.'s (Funhaler) study?

- A age of the children
- B adherence to asthma medication
- C improvement of child's asthma
- D type of asthma inhaler used

Your answer

[1]

14 What is Na in the formula for the Mann Whitney U test below?

$$U_a = NaN_b + \left[\frac{Na(Na + 1)}{2} \right] - R_a \quad U_b = (NaN_b) - U_a$$

- A mean of condition a
- B number of participants in condition a
- C the number of participants in condition a multiplied by the number of participants in condition b
- D total of the ranks for condition a

Your answer

[1]

6

15 What is the median for this set of scores? 21, 14, 20, 21, 12, 17

- A** 17
- B** 17.5
- C** 18.5
- D** 20.5

Your answer

[1]

7

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..... [12]

17 Write a research aim for this study.

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..... [2]

18 (a) Identify an appropriate sample for this study.

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..... [1]

(b) Justify the choice of sample you have identified.

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..... [3]

10

19 (a) Outline **one** strength of the use of open questions in this study.

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(b) Outline **one** weakness of the use of open questions in this study.

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20 Outline **two** ways that you would address the ethical consideration of 'respect' in the design of this self-report study.

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11

21 Outline **one** strength of the use of an interview rather than a written questionnaire in this study.

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22 Identify **one** thing that may lower the generalisability of the findings from this study.

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SECTION C – Data analysis and interpretation

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

Exercise your stress

Stress affects many people, probably everyone at some stage of their life, and can be damaging to our health if it reaches a high level over a continuous period. Psychologists interested in finding ways to control and manage stress have investigated the correlation between exercise and stress by getting a group of ten volunteers to record the average amount of exercise taken each month and comparing this to the amount of stress experienced during the same period. The data obtained is presented in the table below.

Participant	Average number of hours exercise taken each month	Stress rating (0 = 'none' to 100 'high')
a	55	10
b	25	50
c	30	25
d	0	90
e	40	30
f	50	30
g	20	80
h	45	20
i	15	60
j	60	100

23 Outline **two** conclusions that can be made from the data collected in this study.

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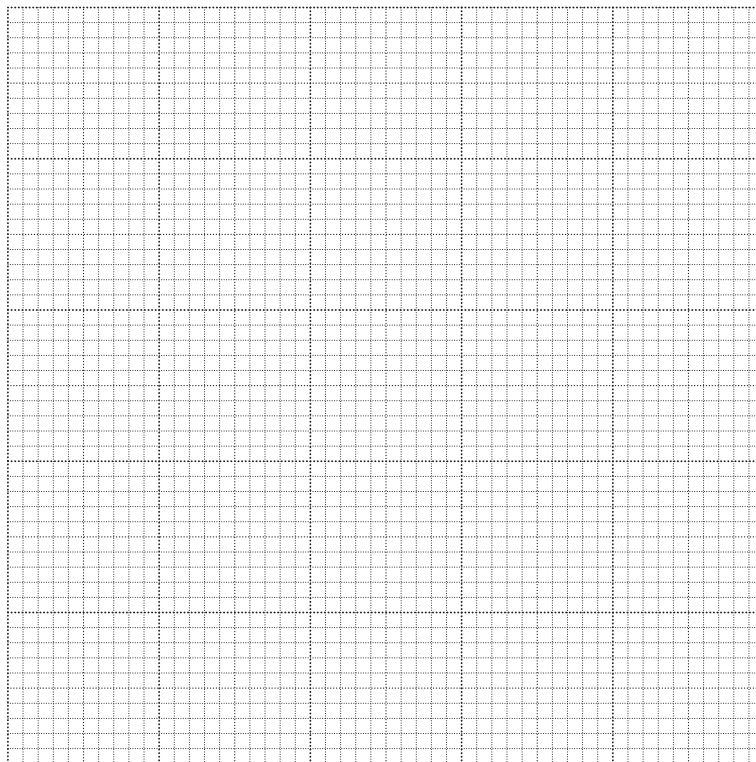
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..... [6]

- 24 Draw a fully labelled scatter diagram displaying the data from this study.



[4]

- 25 Outline **two** things that could have affected the validity of the data collected in this study.

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- 26** Explain why the Spearman's Rho would be the appropriate non-parametric inferential statistical test to use to analyse the data from this study.

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- 27** After carrying out a Spearman's Rho inferential statistical test the calculated value obtained was $r_s = -0.37$. Explain what this means.

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- 28** The standard deviation was calculated for the average number of hours exercised each month and found to be 18.275666882497

- (a)** What is this written to two significant figures?

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- (b)** Explain what this informs us about the average number of hours exercised each month by participants in this study.

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..... [2]

END OF QUESTION PAPER

ADDITIONAL ANSWER SPACE

If additional space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margin(s).

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