OCR
Oxford Cambridge and RSA

A Level Psychology

H567/01 Research methods

Wednesday 7 June 2017 – Afternoon

Time allowed: 2 hours

6831020369

You must have:
- a calculator

H567701

First name									
Last name									
Centre number						Candidate number				

INSTRUCTIONS
- Use black ink.
- Complete the boxes above with your name, centre number and candidate number.
- 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.
- Do **not** write in the barcodes.

INFORMATION
- The total mark for this paper is **90**.
- The marks for each question are shown in brackets **[ ]**.
- Quality of extended responses will be assessed in questions marked with an asterisk (*).
- This document consists of **20** pages.

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SECTION A: Multiple choice

Answer **all** the questions.

1 What is the name of the variable that is measured in an experiment?

A confounding

B dependent

C extraneous

D independent

Your answer ☐ **[1]**

2 The table below displays the data from an experiment investigating the difference in memory ability of a group of young and old people.

Scores in a memory test for words (max 30) by young and old people			
Young people (age 16–25)		Old people (age 65–75)	
participant	score	participant	score
a	26	a	7
b	28	b	25
c	22	c	12
d	30	d	22
e	25	e	12
f	28	f	12

(a) What is the mode for the number of words recalled by the young group?

A 12

B 26

C 27

D 28

Your answer ☐ **[1]**

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(b) What would be the value of '*n*' in the formula below to calculate the standard deviation (SD) of the memory scores for the group of old people in this study?

$$SD = \sqrt{\frac{\Sigma(x - \overline{x})^2}{n}}$$

A 6

B 8

C 12

D 15.5

Your answer ☐ **[1]**

(c) What is the mean for the number of words recalled by the old group?

A 12

B 15

C 18

D 26.5

Your answer ☐ **[1]**

(d) Which of these would be an extraneous variable in this study?

A age

B eyesight

C height

D income

Your answer ☐ **[1]**

(e) What would be the appropriate inferential statistical test to use to analyse the data from this study?

A Chi-square test

B Mann-Whitney U test

C Sign test

D Wilcoxon Signed Ranks test

Your answer ☐ **[1]**

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3 What is the symbol for 'much less than'?

A <

B <<

C >

D >>

Your answer ☐ **[1]**

4 What type of reliability is it when there is a consistency in the recordings made by two or more different observers?

A external

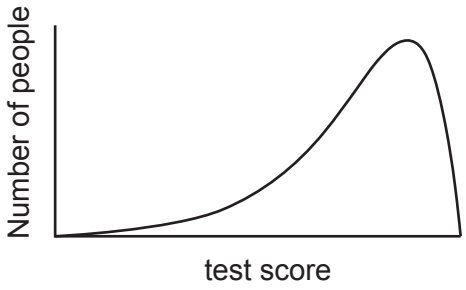
B inter-rater

C split half

D test-retest

Your answer ☐ **[1]**

5 **(a)** What type of distribution is shown in the graph below displaying the results of how people performed in a general knowledge quiz?



A negatively skewed

B normal

C positively skewed

D symmetrical

Your answer ☐ **[1]**

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(b) What can be said about people's general knowledge from this graph?

A most people had a high general knowledge score

B most people had a low general knowledge score

C overall, people's general knowledge is about the same

D there was about the same number of people who scored high as scored low

Your answer ☐ **[1]**

6 What type of inferential statistical tests assume that the data used in the analysis are drawn from a normally distributed population?

A parabolic

B parallel

C parametric

D paranormal

Your answer ☐ **[1]**

7 Which of these was a measure of the dependent variable in the Casey et al. study investigating neural correlates of delay of gratification?

A being classified as a 'high' or 'low' delayer

B being shown 'happy' or fearful' faces

C change of activity level in the inferior frontal gyrus

D the age of the participants

Your answer ☐ **[1]**

8 In deductive reasoning, which comes first?

A data

B observation

C sampling

D theory

Your answer ☐ **[1]**

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9 What type of a scale involves asking people to respond to a series of statements about something in terms of the extent to which they agree or disagree with them?

A binomial

B interval

C Likert

D semantic differential

Your answer ☐ **[1]**

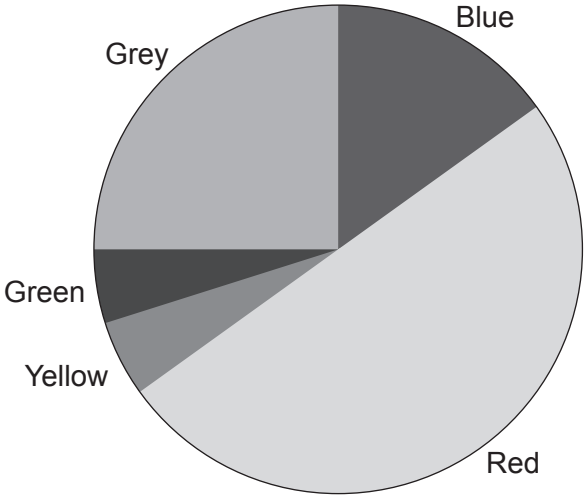
10 The pie chart below displays the data from a sample of 200 people asked what their favourite colour is. How many people said grey was their favourite colour?

A 25

B 50

C 75

D 90



Your answer ☐ **[1]**

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11 The table below presents some data from Milgram's study of obedience showing what the maximum shock was that people delivered. All participants continued up to 300 volts, at which stage 5 people dropped out.

Voltage level	Number of participants for whom this was the maximum shock given
300	5
315	4
330	2
345	1
360	1
375	1
390	0
405	0
420	0
435	0
450	26

(a) What percentage of participants gave a final shock of 315 volts?

A 1.6%

B 4%

C 8%

D 10%

Your answer ☐ **[1]**

(b) What was the total percentage of participants who were 'disobedient' (i.e. did not give a shock of 450 v)?

A 5.6%

B 14%

C 35%

D 65%

Your answer ☐ **[1]**

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12 What type of questions featured in the self-report questionnaires used by Chaney et al. in the 'funhaler study'?

A closed

B open

C qualitative

D semantic differential

Your answer ☐ **[1]**

13 Which of these is an ethical consideration when conducting psychological research?

A integration

B integrity

C intercourse

D interrogation

Your answer ☐ **[1]**

14 Which of the following would assess the internal reliability of a questionnaire used by a psychologist in their research?

A comparing responses to questions asking different things

B comparing responses to questions asking the same things

C comparing responses to questions by two different people

D comparing responses to questions from a different test

Your answer ☐ **[1]**

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Turn over for the next question.

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Section B: Research design and response

Answer **all** the questions.

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

15 Write a research aim for this study.

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16 **(a)** What is a semi-structured interview?

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(b) Briefly outline how you could use a semi-structured interview for this study.

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(c) Evaluate the use of a semi-structured interview in this study.

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Turn over for the next question.

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17* Explain how you would use the self-report method to investigate dreaming. Justify your decisions as part of your explanation.

You must refer to:

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

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

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18 Explain **one** strength and **one** weakness of using the self-report method in this study.

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Section C: Data analysis and interpretation

Answer **all** the questions.

Stand to attention. An educational psychologist conducted a study to investigate if getting pupils to stand up when completing some of their work in class increased their performance by making them concentrate more. An independent measures design experiment was used testing a small group of 12 pupils. Half of the class stood up at their desks whilst completing a maths test whilst the others remained seated. The data obtained from the study is presented in the table below.

Score on maths test (max 20) when stood up or sat down when taking the test			
Stood up		Sat down	
participant	score	participant	score
1	18	1	14
2	20	2	8
3	17	3	20
4	15	4	4
5	18	5	15
6	19	6	12

19 Identify **two** findings from the data presented in this table.

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20 **(a)** Calculate the mean for the 'stood up' condition and present your findings to 2 decimal places. Show your workings.

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(b) Calculate the mean for the 'sat down' condition and present your findings to 2 significant figures. Show your workings.

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(c) Calculate the mean percentage number of words recalled in each condition. Show your workings.

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21 **(a)** Explain how you would calculate the standard deviation for each condition of this study.

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(b) What information would the standard deviation provide if it was calculated for the data in this study?

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(c) The standard deviation for each condition of this study is presented in the table below. What do these findings inform us about the effect of standing up or sitting down when performing a test?

Stood up	Sat down
1.72	5.60

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22 **(a)** What would be the appropriate non-parametric inferential statistical test to use to analyse the data from this study? Give reasons for your answer.

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(b) Outline how the data in this study would be ranked before using the inferential statistical test.

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23 Outline **one** advantage and **one** disadvantage of having quantitative data in this study.

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24 Outline what is meant by each of the following features of science and state how they apply to this study.

(a) hypothesis testing

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(b) manipulation of variables

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END OF QUESTION PAPER

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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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