OCR

Oxford Cambridge and RSA

AS Level Psychology

H167/01 Research methods

Monday 15 May 2017 – Afternoon
Time allowed: 1 hour 30 minutes

You must have:
* a calculator
* a ruler

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 **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.

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SECTION A – Multiple choice

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

1   One billion (1,000,000,000) is a very big number. The brain is estimated to have one hundred billion neurons (nerve cells). What is this written in standard form?

  A 10^8

  B 10^9

  C 10^{10}

  D 10^{11}

Your answer ⬚   **[1]**

2   A psychologist conducted a study investigating reaction times of a group of young and old people to press a key on a keyboard in response to a specific stimuli (e.g. a smiley face).

  (a)   The mean reaction time for young people was 0.7245 seconds. What is this written to two decimal places?

  A   0.7

  B   0.72

  C   0.73

  D   0.74

Your answer ⬚   **[1]**

  (b)   The mean reaction time for old people was 1.1834 seconds. What is this written to two significant figures?

  A   1.1

  B   1.18

  C   1.2

  D   1.9

Your answer ⬚   **[1]**

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

   A   <

   B   <<

   C   >

   D   >>

Your answer [   ] **[1]**

4 If a researcher checks to see if participants have answered questions that ask about the same thing in the same or similar way, what is this?

   A   external reliability

   B   external validity

   C   internal reliability

   D   internal validity

Your answer [   ] **[1]**

5 What term refers to whether research relates to everyday life?

   A   ecological validity

   B   face validity

   C   internal validity

   D   population validity

Your answer [   ] **[1]**

6 A psychologist conducted a survey assessing beliefs in the paranormal with a sample of 144 people.

(a) 25% of people said they believe in ghosts. How many people is this?

   A   25

   B   36

   C   40

   D   72

Your answer [   ] **[1]**

4

(b) 24 people said they believe aliens exist. What fraction of the sample is this?

A 1/3

B 1/4

C 1/6

D 2/3

Your answer [ ] **[1]**

(c) What is the ratio of people who believe in ghosts to aliens?

A 1:4

B 2:3

C 3:2

D 4:1

Your answer [ ] **[1]**

7 Which of these core studies is an example of the longitudinal research method?

A Bandura et al. (transmission of aggression)

B Casey et al. (neural correlates of delay of gratification)

C Milgram (obedience)

D Sperry (split brains)

Your answer [ ] **[1]**

8 What sampling technique was used in the study by Bocchiaro et al. investigating disobedience and whistle-blowing?

A opportunity

B random

C self-selected

D snowball

Your answer [ ] **[1]**

5

9   What type of a rating scale is a semantic differential?

   A   one that has images at either end

   B   one that has numbers at each point along the scale

   C   one that ranges from 'strongly agree' to 'strongly disagree'

   D   one with words having opposite meaning at either end

   Your answer [   ]   **[1]**

10   Which of these descriptive statistics would it be possible to use with nominal data?

   A   mean

   B   median

   C   mode

   D   range

   Your answer [   ]   **[1]**

11   What type of distribution is this?
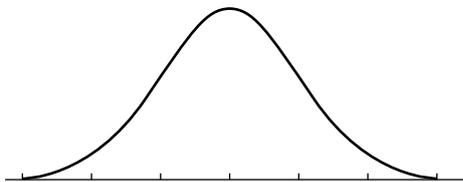
   A   bimodal

   B   negatively skewed

   C   normal

   D   positively skewed

   Your answer [   ]   **[1]**

12   Which of these is not a measure of dispersion?

   A   mean

   B   range

   C   standard deviation

   D   variance

   Your answer [   ]   **[1]**

Turn over

6

SECTION B – Research design and response

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

Do like me. The extent to which people mimic each other's behaviour (e.g. fold arms at the same time) is often regarded as an indicator of how well they are getting on together, especially if in a romantic relationship. A psychologist wants to conduct a study using the observation method to investigate this by studying the behaviour of couples having a drink in a bar. Behaviour was observed every 10 minutes during a period from 8 pm to 10 pm.

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13 Write an appropriate research aim for this study.

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.... **[2]**

14 (a) Describe **one** strength of using the observation method in this study.

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.... **[3]**

(b) Describe **one** weakness of using the observation method in this study.

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.... **[3]**

15 (a) Describe **one** strength of using time sampling in this study.

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.... **[3]**

(b) Describe **one** weakness of using time sampling in this study.

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.... **[3]**

16 Explain the difference between a naturalistic observation and a controlled observation.

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17 Explain how you would conduct a study using the naturalistic observation method to investigate the extent to which couples mimic each other's behaviour whilst having a drink in a bar. Justify your decisions as part of your explanation. You must refer to:

- the use of behavioural categories (5 to 7 categories of behaviour required)
- time sampling
- protection of participants.

You should use your own experience of practical activities to inform your response.

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18 What does inter-rater reliability refer to in this study?

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19 (a) Suggest **one** open question that could have been used if the researcher had used the self-report method instead of the observation method in this study.

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(b) Suggest **one** closed question that could have been used if the researcher had used the self-report method instead of the observation method in this study.

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Turn over

SECTION C – Data analysis and interpretation

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

Funny research. Laughing can be good for us and make us feel better in many ways but psychologists do not know much about why people laugh or what people find funny or why. To investigate this a psychologist used the self-report method to ask people questions about their experiences of laughing and what they find funny. Some of the data that was collected is presented below.

Do you like it when people play practical jokes on you?	
'yes'	'no'
120	80

Do you laugh with your mouth open?		
	'yes'	'no'
males	63	17
females	38	22

Findings when people were asked which category of jokes do you find the funniest	
Category	Number of people
technology	15
health	35
work	10
family	30
news	20
sex	50

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20   What is the ratio of people who like it when practical jokes are played on them to those that do not? Present your answer in its simplest form and show your workings.

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.... **[2]**

11

21 Identify the appropriate inferential statistical test to use in this study to analyse the data obtained from the question asking about whether people laugh with their mouth open or not. Give reasons for your answer.

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22 (a) Draw a fully labelled bar chart to display the data from the question asking people about which category of jokes they find the funniest.

[4]

Turn over

(b) Calculate the percentage of people who reported 'sex' as the category of jokes they found the funniest. Show your workings and present your finding to 2 significant figures.

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23 (a) What level of data is collected in this study? Justify your answer.

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.... **[2]**

(b) Evaluate the use of this level of data in this study.

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24 Outline **two** conclusions from the data collected in this study.

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25 Suggest **two** ways that social desirability may have influenced the data collected in this study.

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END OF QUESTION PAPER

14

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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