



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.

**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]

(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]

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]

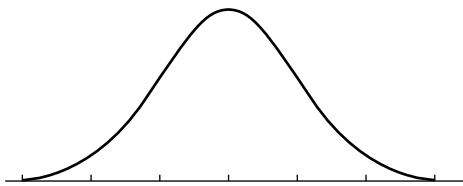
10 Which of these descriptive statistics would it be possible to use with nominal data?

- 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]

**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.

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

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

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

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..... [2]





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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**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.

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

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

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

**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]**

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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..... [3]

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]

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

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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).

A large area of lined paper for writing, consisting of 25 horizontal dotted lines. A solid vertical line runs down the left side of the page, creating a margin. The rest of the page is open for writing.



