OXFORD CAMBRIDGE AND RSA EXAMINATIONS

A LEVEL
H567/01
PSYCHOLOGY
Research methods
MONDAY 4 JUNE 2018: Afternoon
TIME ALLOWED: 2 hours
plus your additional time allowance
MODIFIED ENLARGED 36pt

First name		Last name	

Centre number					Candidate number				

YOU MUST HAVE:
a scientific or graphical calculator
Loose Sheet for Section C

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS

Use black ink.

Complete the boxes on the front page 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.

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 (*).

SECTION A: Multiple choice

Answer ALL the questions.

1 Which of these is a weakness of a quasi experiment? [1]

    A   control of the dependent variable

    B   control of the independent variable

    C   control of the measurement of the dependent variable

    D   control of the measurement of the independent variable

Your answer ☐

2 **Which does not have both an IV and DV?** [1]

A   correlation

B   field experiment

C   laboratory experiment

D   quasi experiment

Your answer ☐

3 **What is it best to do with extraneous variables?** [1]

A   eliminate them

B   ignore them

C   monitor them

D   record them

Your answer ☐

4 **What best describes the target population? [1]**

A the people you want to study and apply the findings to

B the people you want to study and conduct research on in a follow-up study

C the people you want to study and obtain data from

D the people you want to study and use in the research

Your answer

5 **What is the name given to data before any analysis is performed? [1]**

A   **interval**

B   **ordinal**

C   **quantitative**

D   **raw**

Your answer

6 **What is the name for the type of reliability that involves dividing a test into two parts and comparing scores on both parts of the test? [1]**

A semi-structured

B split-half

C test-retest

D two-tailed

Your answer ☐

7 **Which of these inferential statistical tests does not require the data to be ranked as part of the calculation?** **[1]**

A Chi-square

B Mann-Whitney U test

C Spearman's Rho

D Wilcoxon Signed Ranks test

Your answer ⬜

8 **Which of these is an advantage of secondary data?** **[1]**

A   already exists

B   easy to analyse

C   easy to interpret

D   ecologically valid

Your answer ☐

9 **What is meant by the term 'significant result'?** [1]

A   it is a figure that you compare the answer from an inferential statistical test with

B   it is an answer that exceeds a certain probability level

C   it is an answer that tells us something important

D   it is an approximate answer

Your answer ☐

10 In research terms, what is meant by 'social desirability'? [1]

A responding in a way that is approved of by society

B responding in a way to be perceived as more friendly

C responding in a way to please the researcher

D responding in a way to provide the researcher with what is expected

Your answer ☐

11 **In which section of a practical report write-up would you find details of standardised instructions given to participants? [1]**

A **abstract**

B **appendices**

C **discussion**

D **introduction**

Your answer ☐

12 **What is 'the Harvard system'? [1]**

A   a way of presenting results from an inferential statistical test in a practical report

B   a way of providing details of the materials used in a practical report

C   a way of summarising how participants were obtained in a practical report

D   a way of writing academic references in a practical report

Your answer ☐

13 **Which best describes what a semantic differential rating scale is? [1]**

A   selecting a point on a line to indicate your strength of opinion about something

B   selecting a point on a line to respond to how much you agree with something

C   selecting a point on a line with different numbers along it

D   selecting a point on a line with words that have opposite meanings at either end

Your answer ☐

14 Who conducts a peer review? [1]

A a government minister

B a statistician

C fellow academics

D lay persons

Your answer ☐

15 Which of these different types of data would not include any information in the form of words? [1]

A interval

B nominal

C qualitative

D secondary

Your answer ☐

16 **Which of these could not be the answer from a Spearman's Rho inferential statistical test?** [1]

A   –0.728

B   0.3

C   0.892

D   1.52

Your answer

17 **What is the mode in this set of data?** [1]

17, 19, 12, 23, 17, 25, 19, 17

A   17

B   17.5

C   18

D   19

Your answer ☐

18 **The variance of a set of scores is 14.44. What is the standard deviation? [1]**

A 1.4

B 3.8

C 14.0

D 208.51

Your answer ☐

19 **Which variable was negatively correlated with length of time as taxi driver in the Maguire et al. study? [1]**

A **volume of grey matter in the anterior hippocampus**

B **volume of grey matter in the central hippocampus**

C **volume of grey matter in the hippocampus**

D **volume of grey matter in the posterior hippocampus**

Your answer

20 **What type of data was collected in the Piliavin et al. study for the dependent variable of length of time that it took for help to be offered? [1]**

A interval

B non-parametric

C qualitative

D secondary

Your answer ☐

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SECTION B: Research design and response

Answer ALL the questions.

> **TRAVEL LOG. How do people pass the time on a long journey? Some people seem to cope better than others and manage to keep themselves occupied or simply don't mind (perhaps even enjoy) the rest. Others find it more difficult and can become bored and restless. Psychologists want to use the naturalistic observation method to investigate this and find out if some types of behaviour and actions are more common than others.**

21 **Write an appropriate research aim for the study.**

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_____ **[2]**

22* **Explain how you would use the naturalistic observation method to conduct this research. Justify your decisions as part of your explanation.**

In your answer, the required features that you must refer to are:

participant or non-participant observation

behavioural categories

time or event sampling

how data will be recorded during the observation

You should use your own experience of practical activities to inform your response. [15]

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23 **Describe TWO things that may influence the inter-rater reliability of this study.**

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_____ **[6]**

24 Outline ONE strength and ONE weakness of using the naturalistic observation method in this study.

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_____ **[6]**

25 **Describe TWO ways you would address the ethical consideration of 'responsibility' in relation to this study.**

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_____ **[6]**

SECTION C: Data analysis and interpretation

Answer ALL the questions.

26 A partly completed table of measures of central tendency for the data collected in Table 1 on the Loose Sheet is presented below.

Measures of central tendency for the ratings of the importance of physical appearance for being in love given by male and female participants		
	males	females
mean		4.3
median	8.0	
mode	9.0	

Answer the following questions so that the rest of the table can be completed. Show all your workings.

(a) **Calculate the mean rating of the importance of physical appearance for being in love given by males. Write your answer to two significant figures.**

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_____ **[3]**

(b) Calculate the median rating of the importance of physical appearance for being in love given by females.

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_____ **[2]**

(c) What is the mode for the importance of physical appearance for being in love given by females?

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_____ **[1]**

27 (a) **What is the range for the rating of the importance of physical appearance for being in love given by males AND females? Show your workings.**

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_____ **[4]**

(b) **Outline ONE conclusion from the calculation of the range for the rating of the importance of physical appearance for being in love given by males and females.**

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_____ **[3]**

28 (a) Using the formula provided calculate the value of Chi-square for the data in the table below. The E values (expected frequencies) have already been provided (in the table in brackets). Show your workings. [5]

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Responses to the question … 'do you believe in love at first sight?'		
	yes	no
males	5 (8.50)	15 (11.50)
females	12 (8.50)	8 (11.50)

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(b) Using the extract of the tables of critical values for the Chi-square test presented below, what is the critical value at the 5% probability level for data collected in this study?

Degrees of freedom (df)	Probability level		
	0.5	0.05	0.01
1	0.455	3.841	6.635
2	1.386	5.991	9.210
3	2.366	7.815	11.345
4	3.357	9.488	13.277
5	4.351	11.070	15.086

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_____ **[2]**

(c) **Write the significance statement for the analysis performed on this data using the Chi-square test.**

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_____ **[2]**

29 **Using the data presented in the pie chart in Figure 1 on the Loose Sheet, calculate the ratio of how many people said that personality was the most important thing for love compared to those that said wealth was. Show your workings.**

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_____ **[4]**

30 **Evaluate the population validity of the data collected in this study.**

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_____ **[6]**

31 **The discussion section of the write-up of a practical report includes a conclusion made from the analysis of the data collected. Outline ONE conclusion from the discussion section of any of your own practical activities.**

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_____ **[3]**

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).