OCR
Oxford Cambridge and RSA

Monday 4 October 2021 – Afternoon

A Level Psychology

H567/01 Research methods

Time allowed: 2 hours

You must have:
- a scientific or graphical calculator

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

Centre number | | | | | | Candidate number | | | | |

First name(s) _____

Last name _____

INSTRUCTIONS
- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided. If you need extra space use the lined pages at the end of this booklet. The question numbers must be clearly shown.
- Answer **all** the questions.

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

ADVICE
- Read each question carefully before you start your answer.

SECTION A: Multiple choice

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

1 In a study investigating use of mobile phones, the following behavioural categories are used: texting; phoning; browsing; gaming and listening to music. What kind of data will be collected?

A interval

B nominal

C ordinal

D secondary

Your answer ☐ **[1]**

2 If the standard deviation for a set of scores is 6.3, what is the variance?

A 2.51

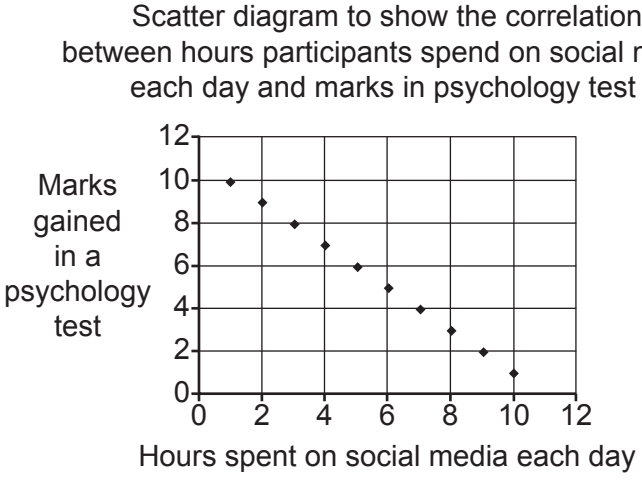
B 6.3

C 12.6

D 39.69

Your answer ☐ **[1]**

3 **(a)** Which correlation coefficient is represented in the data displayed in this scatter diagram?



A –1.0

B –10.0

C +1.0

D +10.0

Your answer ☐ **[1]**

(b) How many participants' data are displayed in this scatter diagram?

A 5

B 10

C 12

D 20

Your answer ☐ **[1]**

4 Which of these would you not find in the appendices of the write-up of a practical report?

A calculations

B ideas for future related research

C raw data

D standardised instructions

Your answer ☐ **[1]**

5 What is the 'Harvard system'?

A a way of measuring obedience

B a way of obtaining participants for research

C a way of ranking data

D a way of referencing academic research

Your answer ☐ **[1]**

6 What level of data and type of design are required to use the Mann-Whitney U test?

A nominal data with independent measures design

B nominal data with repeated measures design

C ordinal data with independent measures design

D ordinal data with repeated measures design

Your answer ☐ **[1]**

7 What is a 'peer review'?

A a check by other psychologists before research is published

B a study of existing published research in the same area

C comments made by the public prior to publication

D ratings of the usefulness of the research prior to publication

Your answer ☐ **[1]**

8 Which is true of a quasi experiment?

A has a naturally occurring independent variable

B has an artificial independent variable

C has no independent variable

D has two independent variables

Your answer ☐ **[1]**

9 Which of these is a type of inferential statistical test?

A parabolic

B paradoxical

C parametric

D parasympathetic

Your answer ☐ **[1]**

10 Which of these statements is true?

A interval data can be treated as ordinal data for analysis

B nominal data can be ranked for analysis

C nominal data cannot be statistically analysed

D ordinal data can be treated as interval data for analysis

Your answer ☐ **[1]**

11 Which of these is a British Psychological Society ethical consideration when conducting psychological research?

A compassion

B competence

C compliance

D compromise

Your answer ☐ **[1]**

12 Which of these is not a type of interview?

A semi-structured

B structured

C unstructured

D unsupported

Your answer ☐ **[1]**

13 In order to use the chi-square test, the expected values (E) of each category of data collected must be worked out first. What is the E value of the data in category cell (a) in the following table?

(a) 12	(b) 8
(c) 16	(d) 4

$$\text{Expected value} = \frac{\text{Row total} \times \text{Column total}}{N}$$

A 14

B 20

C 28

D 40

Your answer ☐ **[1]**

14 In the study by Blakemore and Cooper (1970) investigating the impact of early visual experience, what was the dependent variable?

A the age of the kittens

B the environment the kittens had been raised in

C the neural changes in the visual cortex of the kittens

D the sex of the kittens

Your answer ☐ **[1]**

15 Which of the following best describes the research methods used in the study of moral development conducted by Kohlberg (1968)?

A field experiment and observation

B field experiment and self-report

C longitudinal and observation

D longitudinal and self-report

Your answer ☐ **[1]**

16 Which of these is a type of observation?

A likert

B matched

C quasi

D unstructured

Your answer ☐ **[1]**

17 What is the purpose of the abstract in the write-up of a practical report?

A to provide a replicable account of the research

B to provide a summary of the research

C to provide details of existing previous research

D to provide details of the raw data from the research

Your answer ☐ **[1]**

18 Which of the following could help reduce demand characteristics?

A debriefing the participants

B deceiving the participants

C harming the participants

D paying the participants

Your answer ☐ **[1]**

19 In the Lee *et al.* study (1997) of lying and truth telling, which of these best describes the sample used?

A Chinese and American children

B Chinese and Canadian children

C Japanese and American children

D Japanese and Canadian children

Your answer ☐ **[1]**

QUESTION 20 BEGINS ON PAGE 8

SECTION B: Research design and response

Answer **all** the questions.

Because I'm happy

The word happy is repeated 56 times in Pharrell Williams' song "Happy". But what is happiness? What makes people happy and why? Knowing more about this key emotion would be interesting and could even be beneficial to help understand and treat some affective disorders (such as depression). However, happiness may be unique to each individual so a more personal approach using a self-report is needed to find out more about people's ideas and experiences of this emotion.

A team of psychologists is considering conducting self-report research into people's ideas and experiences of happiness.

20 Outline what the self-report research method involves.

.....

.....

.....

..... **[2]**

21 **(a)** Give details of the sample (participants) they would use to obtain data from in this study.

.....

.....

.....

..... **[2]**

(b) Outline how they could use a self-selected sampling technique to obtain the participants for this study.

.....

.....

.....

.....

.....

..... **[3]**

(c) Outline **one** weakness of using a self-selected sampling technique to obtain participants for this study.

.....

.....

.....

.....

.....

..... **[3]**

22* Explain how you would conduct a study using the self-report method to investigate happiness. Justify your decisions as part of your explanation. You must refer to:

- **two** closed questions you would use
- **two** open questions you would use
- **two** rating scale questions (one Likert, one semantic differential)
- how the self-report will be administered (completed by the participants)

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

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

23 Outline **two** weaknesses of using the self-report method in this study.

.....

.....

.....

.....

.....

.....

.....

..... **[4]**

24 **(a)** Outline the sampling technique you used to obtain the participants for any **one** of your own practical activities.

.....

.....

.....

.....

.....

..... **[3]**

(b) Outline **one** strength of using this sampling technique to obtain the participants for that practical activity.

.....

.....

.....

.....

.....

..... **[3]**

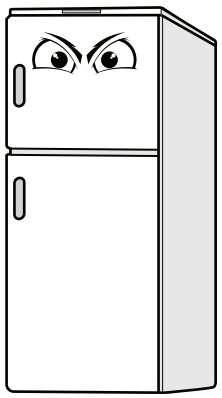
SECTION C: Data analysis and interpretation

Answer **all** the questions.

Cold stare, you dare!

Controlling what we eat can be a challenge and any new idea may help. One psychologist has been investigating the effect of putting a picture of a pair of eyes on a fridge door to see if this can help reduce going to the fridge for snacks. She conducted an experiment using a small sample of 12 participants obtained using snowball sampling. For one week participants kept a record of the number of times they went into the fridge in-between meals for a snack (cheese, chocolate, fruit etc). The following week a pair of eyes was placed on the fridge door and the same participants were again asked to keep a record of the number of times they got a snack from the fridge. The data is presented below.

Participant	Number of times snacks taken from fridge during one week	
	Without eyes on fridge door	With eyes on fridge door
a	14	10
b	21	18
c	32	24
d	28	24
e	20	16
f	8	10
g	26	24
h	12	12
i	22	23
j	18	12
k	20	19
l	21	21



25 **(a)** Calculate the mean for the number of snacks taken from the fridge in the week **without** eyes on the door. Show your workings and write your answer to three significant figures.

.....

.....

.....

.....

.....

..... **[3]**

(b) Calculate the median and range for the number of snacks taken from the fridge in the week **with** eyes on the door. Show your workings.

.....

.....

.....

.....

.....

..... **[3]**

26 The snacking of participant (c) was less during the week with eyes on the fridge than in the week without eyes on the fridge. Calculate this reduction as a percentage. Show your workings.

.....

.....

.....

.....

.....

..... **[3]**

27 **(a)** What does the information from the standard deviation for each condition from this study presented below inform us?

Standard deviation for each condition	
Without eyes on fridge door	With eyes on fridge door
6.726	5.613

.....

.....

.....

.....

.....

..... **[3]**

(b) Outline **one** strength of using the standard deviation rather than the variance as the measure of dispersion for the data collected in this study.

.....

.....

.....

.....

.....

..... **[3]**

28 Using the Wilcoxon T Signed Ranks test, calculate the value of T.

Formula / process for calculating T: T = the sum of differences of the ranks with the least frequent sign

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... **[5]**

Turn over for the next question

29 (a) Using the extract of the table of critical values for the Wilcoxon T Signed Ranks test presented below, what is the critical value for a two-tailed test at the 5% probability level for data collected in this study?

Extract of table of critical values for Wilcoxon T Signed Ranks test
(*T* is significant if it is **less than or equal** to the table value)

N	level of significance for a one-tailed test					
	.10	.05	.025	.01	.005	.001
	level of significance for a two-tailed test					
	.20	.10	.05	.02	.01	.002
4	0					
5	2	0				
6	4	2	0			
7	6	3	2	0		
8	8	5	3	1	0	
9	11	8	5	3	1	
10	14	10	8	5	3	0
11	17	13	10	8	5	3
12	21	17	13	10	7	5

.....

.....

.....

..... **[2]**

(b) Write the significance statement for the analysis carried out in Question 28 with a probability of 5%, assuming a non-directional hypothesis.

.....

.....

.....

..... **[2]**

(c) The Wilcoxon T Signed Ranks test was used as the data was considered **not** to be parametric. Identify **two** of the criteria for using a parametric test to analyse data.

.....

.....

.....

..... **[2]**

30 Outline **one** way that the sampling technique used to obtain participants for this study could have affected the generalisability of the data collected in this study.

.....

.....

.....

.....

.....

..... **[3]**

31 **(a)** Outline **one** advantage of having quantitative data in this study.

.....

.....

.....

.....

.....

..... **[3]**

(b) Outline **one** disadvantage of not having qualitative data in this study.

.....

.....

.....

.....

.....

..... **[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).