Cambridge International AS & A Level	Cambridge International Examinations Cambridge International Advanced Subsidiary and Advanced Level

	NAME			
×	CENTRE NUMBER		CANDIDATE NUMBER	
* 675541665	PSYCHOLOGY	,		9990/22
σ <b></b>	Paper 2 Resea	rch Methods		February/March 2018
4				1 hour 30 minutes
6	Candidates ans	wer on the Question Paper.		
б (л	No Additional M	aterials are required.		

# **READ THESE INSTRUCTIONS FIRST**

Write your Centre number, candidate number and name in the spaces at the top of this page. Write in dark blue or black pen.

You may use an HB pencil for any diagrams or graphs. Do not use staples, paper clips, glue or correction fluid. DO NOT WRITE IN ANY BARCODES.

#### Answer all questions.

At the end of the examination, fasten all your work securely together. The number of marks is given in brackets [] at the end of each question or part question.

This document consists of **11** printed pages and **1** blank page.



# Section A

Answer **all** questions in this section.

1 One of the aims of the study by Schachter and Singer (two factors in emotion) was to find out whether the mood of a stooge affected the way participants interpreted their arousal level. (a) Write an operationalised directional (one-tailed) hypothesis using this aim. .....[2] (b) Write a null hypothesis using this aim. .....[1] 2 (a) State the difference between a 'population' and a 'sample'. .....[2] (b) State one feature of the population in the study by Milgram (obedience). .....[1]

3	(a)	Nan	ne <b>one</b> sampling technique.
			[1]
	(b)	Exp	lain <b>one</b> advantage of using this sampling technique.
			[2]
	0		
4			a and Silverman studied a boy with a phobia of buttons and measured his distress using is thermometer'.
	(a)	(i)	Name the type of data produced by the feelings thermometer.
			[1]
		(ii)	How did the feelings thermometer measure distress?
			[1]
		-	
	(b)	Sug	gest <b>one</b> disadvantage of using the feelings thermometer to measure distress.
			[2]

- 4
- 5 In the study by Baron-Cohen et al. (eyes test), there was more than one control condition.
  - (a) Identify **one** of the control conditions.

.....[1]

(b) Explain one reason for having a control condition, using this study as an example.

6 Describe the differences between a field experiment and a natural experiment, using any examples.

Question 7 appears on the following page.

# Section **B**

Answer **all** questions in this section.

7 Dipa is studying memory using a brain scanner. She is testing the hypothesis that 'There will be a positive correlation between level of brain activity and how much a person can recall'. Each participant is asked to describe an event that happened more than one year ago.

(a)	Name <b>one</b> brain scan that Dipa could use.
	[1]
(b)	Suggest why data from brain scans is likely to be reliable.
	[2]
(c)	Suggest how Dipa could convert each participant's description into a memory score.
	[1]
(d)	Explain whether Dipa will be able to conclude that greater recall causes more brain activity.
	[2]

(e) Dipa considered asking her participants to recall a specific event, such as their last birthday, but decided that this could be unethical, so gave them a choice about which event to recall.

Explain **one** reason why this was a better procedure in terms of ethics.

Hugo is using a questionnaire to find out about people's helping behaviour in the daytime and at 8 night. (a) What is meant by 'open questions' and 'closed questions'? ..... .....[2] (b) Suggest one open question that Hugo could ask. .....[1] (c) Suggest one advantage of using open questions in Hugo's study. .....[2] (d) Explain one problem that Hugo might have with the validity of the responses to his questionnaire. ..... .....[3]

- 9 Keelan has collected data about children's aggression. He has several different types of data.
  - (a) In one experiment, Keelan recorded the total number of aggressive acts per hour in children of each age between 3 and 18 years old.

Name the type of graph that would be **most** suitable to display this frequency data.

.....[1]

(b) Label the axes for the graph that Keelan should use.

	у-а	axis label		
		L	<i>x</i> -axis label	
				[3]
(c)	Nar	ne <b>one</b> measure of spread that Kee	elan could calculate from his data.	[1]
(d)	Kee pinc		of aggressive acts in categories: bit	e, kick, slap and
	(i)	Name the measure of central tend	dency that Keelan should use for this	
	(ii)	State how Keelan would calculate	this measure of central tendency.	
				[1]

# Section C

Answer all questions in this section.

**10** Peter is studying psychology at university and has decided to conduct an experiment about positive emotions and pulse rate because he believes that people's pulse rate changes with mood.

(a) Describe how Peter could conduct a laboratory experiment to test whether pulse rate differs

W	hen people experience positive and negative emotions.
•••	
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•••	
•••	[10]

(b) Identify **one** weakness/limitation with the procedure you have described in your answer to part (a) and suggest how your study might be done differently to overcome the problem.

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