Please check the examination details below Candidate surname	Other names
Pearson Edexcel nternational Advanced Level	Candidate Number
Monday 13 May	2019
Afternoon (Time: 1 hour 30 minutes)	Paper Reference WPS01/01
Psychology International Advanced Sub Paper 1: Social and Cognitive	•
You do not need any other materials.	Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
 - there may be more space than you need.

Information

- The total mark for this paper is 64.
- The marks for **each** question are shown in brackets
 - use this as a guide as to how much time to spend on each question.
- The list of formulae and statistical tables are printed at the start of this paper.
- Candidates may use a calculator.

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

Turn over ▶







FORMULAE AND STATISTICAL TABLES

Standard deviation (sample estimate)

$$\sqrt{\left(\frac{\sum (x-\bar{x})^2}{n-1}\right)^2}$$

Spearman's rank correlation coefficient

$$1 - \frac{6\sum d^2}{n(n^2 - 1)}$$

Critical values for Spearman's rank

Level of significance for a one-tailed test

	0.05	0.025	0.01	0.005	0.0025
		vel of signifi			
N	0.10	0.05	0.025	0.01	0.005
5	0.900	1.000	1.000	1.000	1.000
6	0.829	0.886	0.943	1.000	1.000
7	0.714	0.786	0.893	0.929	0.964
8	0.643	0.738	0.833	0.881	0.905
9	0.600	0.700	0.783	0.833	0.867
10	0.564	0.648	0.745	0.794	0.830
11	0.536	0.618	0.709	0.755	0.800
12	0.503	0.587	0.678	0.727	0.769
13	0.484	0.560	0.648	0.703	0.747
14	0.464	0.538	0.626	0.679	0.723
15	0.446	0.521	0.604	0.654	0.700
16	0.429	0.503	0.582	0.635	0.679
17	0.414	0.485	0.566	0.615	0.662
18	0.401	0.472	0.550	0.600	0.643
19	0.391	0.460	0.535	0.584	0.628
20	0.380	0.447	0.520	0.570	0.612
21	0.370	0.435	0.508	0.556	0.599
22	0.361	0.425	0.496	0.544	0.586
23	0.353	0.415	0.486	0.532	0.573
24	0.344	0.406	0.476	0.521	0.562
25	0.337	0.398	0.466	0.511	0.551
26	0.331	0.390	0.457	0.501	0.541
27	0.324	0.382	0.448	0.491	0.531
28	0.317	0.375	0.440	0.483	0.522
29	0.312	0.368	0.433	0.475	0.513
30	0.306	0.362	0.425	0.467	0.504

The calculated value must be equal to or exceed the critical value in this table for significance to be shown.



Chi-squared distribution formula

$$X^{2} = \sum \frac{(O-E)^{2}}{E}$$
 $df = (r-1)(c-1)$

Critical values for chi-squared distribution

Leve	l of	significance	for a one-ta	iled test

	0.10	0.05	0.025	0.01	0.005	0.0005
		Level of s	ignificance	for a two-	tailed test	
df	0.20	0.10	0.05	0.025	0.01	0.001
1	1.64	2.71	3.84	5.02	6.64	10.83
2	3.22	4.61	5.99	7.38	9.21	13.82
3	4.64	6.25	7.82	9.35	11.35	16.27
4	5.99	7.78	9.49	11.14	13.28	18.47
5	7.29	9.24	11.07	12.83	15.09	20.52
6	8.56	10.65	12.59	14.45	16.81	22.46
7	9.80	12.02	14.07	16.01	18.48	24.32
8	11.03	13.36	15.51	17.54	20.09	26.12
9	12.24	14.68	16.92	19.02	21.67	27.88
10	13.44	15.99	18.31	20.48	23.21	29.59
11	14.63	17.28	19.68	21.92	24.73	31.26
12	15.81	18.55	21.03	23.34	26.22	32.91
13	16.99	19.81	22.36	24.74	27.69	34.53
14	18.15	21.06	23.69	26.12	29.14	36.12
15	19.31	22.31	25.00	27.49	30.58	37.70
16	20.47	23.54	26.30	28.85	32.00	39.25
17	21.62	24.77	27.59	30.19	33.41	40.79
18	22.76	25.99	28.87	31.53	34.81	42.31
19	23.90	27.20	30.14	32.85	36.19	43.82
20	25.04	28.41	31.41	34.17	37.57	45.32
21	26.17	29.62	32.67	35.48	38.93	46.80
22	27.30	30.81	33.92	36.78	40.29	48.27
23	28.43	32.01	35.17	38.08	41.64	49.73
24	29.55	33.20	36.42	39.36	42.98	51.18
25	30.68	34.38	37.65	40.65	44.31	52.62
26	31.80	35.56	38.89	41.92	45.64	54.05
27	32.91	36.74	40.11	43.20	46.96	55.48
28	34.03	37.92	41.34	44.46	48.28	56.89
29	35.14	39.09	42.56	45.72	49.59	58.30
30	36.25	40.26	43.77	46.98	50.89	59.70
40	47.27	51.81	55.76	59.34	63.69	73.40
50	58.16	63.17	67.51	71.42	76.15	86.66
60	68.97	74.40	79.08	83.30	88.38	99.61
70	79.72	85.53	90.53	95.02	100.43	112.32

The calculated value must be equal to or exceed the critical value in this table for significance to be shown.



Wilcoxon Signed Ranks test process

- Calculate the difference between two scores by taking one from the other
- Rank the differences giving the smallest difference Rank 1

Note: do not rank any differences of 0 and when adding the number of scores, do not count those with a difference of 0, and ignore the signs when calculating the difference

- Add up the ranks for positive differences
- Add up the ranks for negative differences
- T is the figure that is the smallest when the ranks are totalled (may be positive or negative)
- N is the number of scores left, ignore those with 0 difference

Critical values for the Wilcoxon Signed Ranks test

Level of s	ignificance fo	or a one-	tailed t	est
0.05	0.0	125	٥	Λ1

	0.05	0.025	0.01
	Level of signif	ficance for a two-	tailed test
n	0.1	0.05	0.02
N=5	0	-	-
6	2	0	-
7	3	2	0
8	5	3	1
9	8	5	3
10	11	8	5
11	13	10	7
12	17	13	9

The calculated value must be equal to or less than the critical value in this table for significance to be shown.



BLANK PAGE

SECTION A BEGINS ON THE NEXT PAGE.

SECTION A

SOCIAL PSYCHOLOGY

Answer ALL questions. Write your answers in the spaces provided.	
1 Milgram conducted research into obedience, including variation studies.	
(a) Describe the results of Milgram's ordinary man gives orders (Experiment 13) study.	(2)

(Experiment 13) study.		(4)
Strength		
Weakness		
	(Total for Question	1 = 6 marks)



2	A high school was concerned about how little fruit its students were consuming on a weekly basis. The high school wanted a health expert to visit the school to speak to the students. It invited Doctor Foster to come to the school. He gave a talk to students about the importance of healthy eating. Doctor Foster instructed the students to eat more fruit. Ten students' names had been chosen from a hat from each year group to report on	
	their consumption of fruit. The school gave the students a questionnaire to record the amount of fruit they consumed before and after Doctor Foster's visit to the school.	
	(a) State a directional (one-tailed) alternative hypothesis for the high school study.	(2)
	(b) (i) Identify the sampling technique used in the high school study.	(1)
	(ii) Explain one strength of using the sampling technique you identified in (b)(i) for the high school study.	(2)
		(-)

The mean fruit consumption for each year group from the high school study is shown in **Table 1**.

Year group	Mean fruit consumption per week before Doctor Foster's talk	Mean fruit consumption per week after Doctor Foster's talk	
Α	5.6	7.1	
В	8.4	14.1	
С	12.2	21	
D	11.4	23.5	
E	10.5	17.7	

Table 1

(c) Calculate the mean consumption of fruit for the high school after Doctor Foster's talk.

You **must** give your answer to **one** decimal place.

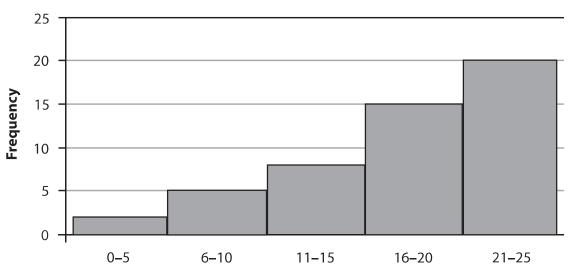
(1)

Space for calculations

Mean consumption of fruit for the high school after Doctor Foster's talk

The high school displayed the fruit consumption of sampled students after Doctor Foster's talk on a graph, which is shown in **Figure 1**.

A histogram to show the amount of fruit consumed per week after Doctor Foster's talk



Total fruit consumed per week

Figure 1

(d) Explain **one** conclusion that could be made from the graph shown in **Figure 1**.

(2)

(Total for Question 2 = 8 marks)

3	Explain the influence of culture on conformity.	(4)
•••••		
	(Total for Question 3 = 4 mar	rks)



4	In your studies of social psychology you will have covered the contemporary study by Burger (2009).	
	Evaluate the contemporary study by Burger (2009) in terms of reliability and validity.	(8)

HIS AREA	
164	
œ	
-	
10	
<u> </u>	
44	
**	
$\overline{}$	
ш	
1	
-	
DE	
~	
<	
1	
0	
ب	
$\overline{}$	
0	
\sim	
DO NOT WRITE IN	
AREA	
4	
ш	
0	
◂	
TIS.	
S	
70	
~	
Z	
Z	
Z	
N H	
TEIN	
SITE IN	
RITE IN	
NRITE IN	
WRITE IN	
T WRITE IN	
T WRITE IN	
OT WRITE IN	
NOT WRITE IN	
NOT WRITE IN	
O NOT WRITE IN	
O NOT WRITE IN	
DO NOT WRITE IN	
DO NOT WRITE IN	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
۵	
E IN THIS AREA	
E IN THIS AREA	
۵	

		1	Ċ	í
II.	4	Ŀ	J	ŀ
ĺ		į		ŧ
į		j	ζ	į
ľ	Ì	í	1	ì
	2		3	į
ľ	7	5	7	۱
į	Ž		2	ŀ
2	7	2		į
ļ		ļ		ļ
Ć	3	ľ	2	
	è	ì	þ	ı
Š	2	Š		
ŀ	Ź			į
Ç	2))
4		2		ı
ĺ			Š	í
3	ì		í	ř
			1	l

(Total for Question 4 = 8 marks)
TOTAL FOR SECTION A = 26 MARKS



SECTION B

COGNITIVE PSYCHOLOGY

Answer ALL questions. Write your answers in the spaces provided.

5	In your studies of cognitive psychology you will have learned about Bartlett's (1932) War of the Ghosts study.	
	(a) State one aim of Bartlett's (1932) War of the Ghosts study.	(1)
	(b) State two results of Bartlett's (1932) War of the Ghosts study.	(2)
1		
2		
	(c) Explain one way Bartlett's (1932) War of the Ghosts study could be improved.	(2)
•••••		
	(Total for Question 5 = 5 ma	arks)

6	Zulikhat was investigating working memory and set up an experiment to test the
	difference in a single task and a dual task for participants.

Zulikhat recruited 10 of her friends and gave them a single task (condition A) and then a dual task (condition B). Condition A involved a single reasoning task. Condition B involved a dual task where participants had to do the same reasoning task but also read a list of numbers at the same time.

Zulikhat recorded how long it took participants to complete condition A and condition B using a stopwatch.

(a) State how the dependent variable (DV) has been operationalised in Zulikhat's study.

(1)



The results of Zulikhat's study are shown in **Table 2**.

Participant	Condition A	Condition B
	Time taken (in seconds) to complete single task	Time taken (in seconds) to complete dual task
А	100	228
В	120	185
С	150	201
D	124	210
E	132	165
F	129	224
G	119	200
Н	147	210
ı	123	165
J	156	212
Mean	130	200

Table 2

	ear		n ap me																															(:	3)	
										•••••			•••••													• • • • • •						· • • • • • •				
	•••••				• • • • • • •			• • • • • •		•••••			•••••								••••	••••	•••••			• • • • • •			•••••				•••••			
			H		H				\blacksquare			П														H			П					Ŧ		
																											\pm		\pm	\pm						
		\parallel	#	Ш	\pm				\parallel				#			Ш																				#
H	$+\Box$	+	#	H	#	H			+	H			$+\Gamma$				+	H	Ħ	f	H	Ŧ	H	Ħ	H	Ħ	Ħ	H	Ħ	Ŧ		H		Ŧ		Ŧ
	\blacksquare	\parallel			\blacksquare																								\parallel			\blacksquare				
		+	#		$^{+}$	H			+	H		\parallel				Н			H					H		Ħ	$^{+}$	+	Ħ	+		#		Ŧ		\pm
					Н																					Н			Н			\blacksquare		1		
					\pm					H																H			$^{+}$			#				
					\blacksquare		Н									Ш										H	Н		H	\perp		\blacksquare				
					\pm																						\pm		\pm	\pm						
			H		H					H			#			Ш										H	H		H			\blacksquare				
					\blacksquare					H																H	\blacksquare		\blacksquare							
		+	#		#				+	H		+				Н								H		Ħ	+	+	+	+	\blacksquare	#				
	\blacksquare	\blacksquare	\blacksquare		\pm					H		\blacksquare														H	\blacksquare	\exists	Ħ		\blacksquare					
		+	#		#				#	H		H	#						H					H		Ħ	#	H	+	÷		#		+		+
					\blacksquare							Н														H			H			\blacksquare				
					\pm					H																H			\pm			#				
																										H			H	+		\blacksquare				
			+		\pm							Н				\blacksquare								Н		H	\blacksquare		H	\pm	\blacksquare					\pm
H	+	+	#		+	+	Ħ	\parallel	+	H	H	\parallel	+	+		H	+	+	+	Ħ	#	+	+	Ħ		#	+	#	#	+	#	#	+	#	H	#
		\parallel	\blacksquare		$^{+}$				+							\mathbb{H}			H					H		H	H	H	H	H	\blacksquare	\blacksquare				
		+	#		$^{+}$	+			+	H		\parallel				Н			H					H		Ħ	+	+	†	+		#		Ŧ		\pm
																										H				H		\blacksquare				
		+	#		#		H		+	H		\blacksquare							H					H		Ħ	+	+	Ħ	+		H		+		\pm
		\blacksquare			\blacksquare											Н										H			H			\blacksquare				
					\pm					H																Ħ	+		\pm			#				
		H	Ħ		H	Ħ			H			Ħ						Ŧ			F				H	H		H	H							
		\parallel			\pm	\parallel	\parallel									\blacksquare										Ħ	\pm	\parallel	\pm	Ħ	\parallel	#		#		#
		+			+																					Ħ		H	H		+	#		+		
H	+	\mp			\pm	\Box	Ħ		+	H		\blacksquare	+		H	Ħ		+	H		Ħ	H	H	Ħ		Ħ	Ħ	Ħ	Ħ	Ŧ		\blacksquare		+		\mp



(c)	Zulikhat carried out a Wilcoxon signed ranks test on her data to calculate statistical significance for the difference in time taken to complete the single task and the dual task. The calculated (T) value was 8 (T=8) for a two-tailed test at p=0.05 with N=10. Explain whether Zulikhat's result is significant or not.	
	The critical value table can be found in the formulae and statistics table at the	
	front of the paper.	(2)
		~
(d)	Explain how one participant variable could have affected Zulikhat's study.	
		(2)
	(Total for Question 6 = 8 ma	rks)

7	The multi-store model of memory was proposed by Atkinson and Shiffrin (1968). (a) Define the term 'encoding' as it is used in the multi-store model.	(1)
1 .	(b) Explain two strengths of Atkinson and Shiffrin's (1968) multi-store model of memory.	(4)
2.		
	(Total for Question 7 = 5 r	narks)



8	Zahra and her friend Namra were opening a new account in their local bank. While they were there a person entered and pointed something at the cashier and demanded money. The person then left the bank with the money.	
	The police arrived shortly after and asked Zahra and Namra what they had witnessed. Zahra said the person had brown hair and pointed a gun at the cashier, whereas Namra said the person had black hair and pointed a knife at the cashier.	
	Discuss how reconstructive memory could explain Zahra and Namra's recall of the incident.	
	You must make reference to the context in your answer.	(8)





(T.116.0 .: 0.0)
(Total for Question 8 = 8 marks)

TOTAL FOR SECTION B = 26 MARKS

SECTION C

Answer the question in this section. Write your answer in the space provided.

- **9** Patients A, B and C attend a memory clinic and participate in a series of memory recall tasks.
 - Patient A performs well on a recall task where digits are displayed on a screen, but does not perform well on a recall task where digits are read aloud.
 - Patient B performs well on a recall task with short words, but does not perform well on a recall task with long words.
 - Patient C performs well on a recall task where a word list is displayed on a screen and read aloud, but does not perform well on a recall task where two word lists are displayed on a screen.

Evaluate how well the working memory model can account for the patients' performance in the recall tasks.

You must make reference to the context in your answer.

(12)



,



TOTAL FOR SECTION C = 12 MARKS TOTAL FOR PAPER = 64 MARKS	
	(Total for Question 9 = 12 marks)



BLANK PAGE



BLANK PAGE