Please check the examination details below before entering your candidate information

Candidate surname	Other names

Pearson Edexcel
International
Advanced Level

Centre Number	Candidate Number

Thursday 21 January 2021

Afternoon (Time: 1 hour 30 minutes) | Paper Reference **WPS03/01**

Psychology

International Advanced Level
Paper 3: Applications of Psychology

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 in Section A, and **ALL** questions from **EITHER** Option 1 criminological psychology **OR** Option 2 health psychology.
- 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 ▶

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FORMULAE AND STATISTICAL TABLES

Standard deviation (sample estimate)

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

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**
	Level of significance for a two-tailed test				
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

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

Critical values for chi-squared distribution

	Level of significance for a one-tailed test					
	0.10	**0.05**	**0.025**	**0.01**	**0.005**	**0.0005**
	Level of significance 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 significance for a one-tailed test		
	0.05	0.025	0.01
	Level of significance 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.

SECTION A

DEVELOPMENTAL PSYCHOLOGY

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

1 In developmental psychology, you will have learned about the following classic study in detail:

- Van iJzendoorn and Kroonenberg (1988).

(a) Explain **two** strengths of the study by Van iJzendoorn and Kroonenberg (1988).

(4)

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2 .....

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(b) Explain **one** improvement that could be made to the study by Van iJzendoorn and Kroonenberg (1988).

(2)

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(Total for Question 1 = 6 marks)

2 Erica is planning to investigate the effectiveness of baby sign language for communication. She recruited 10 families from her local university. The parents were taught specific hand signals, for example 'milk' and 'teddy bear', during a five-week baby sign language programme.

The child's ability to communicate was assessed before and after the programme.

(a) Describe **two** ethical issues Erica should consider in her investigation.

(2)

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The communication ability of each child was measured out of 50, with 10 being low ability and 50 being high ability.

The results of Erica's investigation are shown in **Table 1**.

Participant	Communication score before baby sign language programme	Communication score after baby sign language programme
A	12	11
B	13	15
C	41	48
D	35	41
E	28	32
F	21	31
G	14	14
H	32	40
I	17	26
J	20	32

Table 1

(b) Complete **Table 2** and calculate the Wilcoxon Signed Ranks test for Erica's data.

(4)

Participant	Communication score before baby sign language programme	Communication score after baby sign language programme	Difference	Ranked difference
A	12	11		
B	13	15		
C	41	48		
D	35	41		
E	28	32		
F	21	31		
G	14	14		
H	32	40		
I	17	26		
J	20	32		

Table 2

Space for calculations

Wilcoxon T .....

(Total for Question 2 = 6 marks)

3 Florian is interested in children's social development. He would like to use a cross-sectional research method to see how their social development changes over time.

(a) Describe how Florian could use a cross-sectional research method to study the changes in children's social development.

(2)

(b) Explain **one** weakness of Florian using a cross-sectional research method to study children's social development.

(2)

(Total for Question 3 = 4 marks)

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4 Ivy is 12 years old and has recently moved with her family from England to France.

Ivy now attends the local school where all her lessons are taught in French. She is having extra French language lessons after school and practises her speaking with her French friends. When she is at home with her parents, she only speaks English and watches English television.

Discuss, using Chomsky's language acquisition device (LAD), why Ivy may be able to speak both languages.

You must make reference to the context in your answer.

(8)

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(Total for Question 4 = 8 marks)

5 Assess whether mindfulness can be considered ethical when used to enhance children's development.

(8)

(Total for Question 5 = 8 marks)

TOTAL FOR SECTION A = 32 MARKS

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SECTION B

Answer ALL questions from EITHER OPTION 1: CRIMINOLOGICAL PSYCHOLOGY

OR OPTION 2: HEALTH PSYCHOLOGY.

Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.

If you answer the questions in Option 1 put a cross in the box ☒ .

OPTION 1: CRIMINOLOGICAL PSYCHOLOGY

6 (a) Describe antisocial personality disorder (ASPD) as an explanation of criminal and antisocial behaviour.

(2)

(b) Justify how antisocial personality disorder (ASPD) can be considered a credible explanation of criminal and antisocial behaviour.

(3)

(Total for Question 6 = 5 marks)

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7 Ren is researching whether using the services of a charity that gives support to victims of crime is beneficial to their emotional wellbeing. The charity has given their approval for Ren to work with their service users.

Ren gathered a volunteer sample. He gave them a questionnaire, which included closed questions, to gather data on the impact of the crimes. He also conducted 11 in-depth interviews with the victims of crime.

(a) Describe how Ren may have used a volunteer sampling technique to gather his participants.

(3)

(b) Explain **one** strength of Ren using quantitative data for his research.

(2)

(c) Explain **one** strength of Ren using qualitative data for his research.

(2)

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(Total for Question 7 = 7 marks)

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8 Myrtle has recently completed her training and is now a police officer. She has been asked to conduct her first cognitive interview. She will be using cognitive interviewing techniques that she was taught during her training.

Jared was at the local shopping mall when he saw two men running away from a shoe shop closely followed by a security guard.

Explain **one** strength and **one** weakness of Myrtle using cognitive interviewing techniques with Jared.

(4)

Strength

Weakness

(Total for Question 8 = 4 marks)

9 In your studies of criminological psychology, you will have learned about the following contemporary study in detail:

- Bradbury and Williams (2013).

Evaluate the study by Bradbury and Williams (2013) in terms of reliability and validity.

(8)

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(Total for Question 9 = 8 marks)

10 Assess the influence of post-event information on the reliability of eyewitness memory.

(8)

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(Total for Question 10 = 8 marks)

TOTAL FOR SECTION B OPTION 1 = 32 MARKS

SECTION B

If you answer the questions in Option 2 put a cross in the box ☒ .

OPTION 2: HEALTH PSYCHOLOGY

11 (a) Describe Selye's General Adaptation Syndrome (GAS) as an explanation for stress.

(2)

(b) Justify how Selye's General Adaptation Syndrome (GAS) can be considered a credible explanation for stress.

(3)

(Total for Question 11 = 5 marks)

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12 Ren is researching whether joining a bereavement support group following the death of a loved one is beneficial to emotional wellbeing. His local hospice has given their approval to work with their services users.

Ren gathered a volunteer sample. He gave them a questionnaire, which included closed questions, to gather data on the outcome of the bereavement sessions. He also conducted 11 in-depth interviews with the individuals who had taken part.

(a) Describe how Ren may have used a volunteer sampling technique to gather his participants.

(3)

(b) Explain **one** strength of Ren using quantitative data for his research.

(2)

(c) Explain **one** strength of Ren using qualitative data for his research.

(2)

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(Total for Question 12 = 7 marks)

13 Myrtle is an occupational therapist who specialises in coping strategies. Jared is about to sit a final examination at work and is worried he will not pass. He is not sleeping and now finds it difficult to concentrate, which is making him even more worried.

Jared has been referred to Myrtle and hopes that she can help him cope with managing his stress.

Explain **one** strength and **one** weakness of Myrtle using appraisal focusing as a coping strategy to help Jared.

(4)

Strength

Weakness

(Total for Question 13 = 4 marks)

14 In your studies of health psychology, you will have learned about the following contemporary study in detail:

- Nakonz and Shik (2009).

Evaluate the study by Nakonz and Shik (2009) in terms of reliability and validity.

(8)

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(Total for Question 14 = 8 marks)

15 Assess the effectiveness of serotonin and norepinephrine reuptake inhibitors (SNRIs) as a treatment for anxiety.

(8)

(Total for Question 15 = 8 marks)

TOTAL FOR SECTION B OPTION 2 = 32 MARKS
TOTAL FOR PAPER = 64 MARKS

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