GradeMax

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 17 January 2019

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 criminal 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.

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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.

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SECTION A

DEVELOPMENTAL PSYCHOLOGY

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

1 Sarah is two years old. She can form short, two- to three-word sentences that are grammatically incorrect.

(a) Give the stage of language development that Sarah is currently in.

(1)

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(b) Describe, using your understanding of Chomsky, why Sarah makes grammatical errors when forming sentences.

(2)

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(Total for Question 1 = 3 marks)

2 Erikson suggested that individuals progress through psychosocial stages of development during their lifetime. Two of these stages are 'Initiative versus Guilt' and 'Industry versus Inferiority'.

Explain how these **two** psychosocial stages can impact on development.

(4)

Initiative versus Guilt

Industry versus Inferiority

(Total for Question 2 = 4 marks)

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3 Jared carried out an investigation into attachment using a questionnaire that contained open-ended questions. He gave the questionnaire to adults aged 25 to 35 years old.

(a) Explain **two** reasons for using open-ended questions in psychological research.

(4)

1 .....

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2 .....

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Jared had a total sample of 33 participants, nine of whom were male. The results of his investigation are shown in **Table 1**.

Attachment Type	Male	Female
Type A	3	4
Type B	3	15
Type C	3	5

Table 1

(b) Jared used a chi-squared test to see if there was a significant difference between attachment types in males and females.

Calculate *df* for Jared's chi-squared test by substituting into the formula.

You **must** show your working out.

The formulae and statistical tables can be found at the front of the paper.

(2)

Space for calculations

df .....

(c) Calculate the ratio of males to females for attachment type B, using the data in **Table 1**.

You **must** give your answer in the lowest form.

(1)

Space for calculations

Ratio of males to females for attachment type B .....

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(d) Explain **one** improvement that Jared could make to the method he used to gather his data.

(2)

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(Total for Question 3 = 9 marks)

4 In developmental psychology, you will have learned about one of the following contemporary studies in detail:

- Ashdown and Bernard (2012) Can explicit instruction in social and emotional learning skills benefit the social and emotional development, well-being and academic achievement of young children?
- Ding et al. (2014) The relation of early infant attachment to attachment and cognitive development outcomes in early childhood.

Evaluate your chosen contemporary study from developmental psychology.

(8)

Chosen Study

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(Total for Question 4 = 8 marks)

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5 Assess whether Punch's (2002) research in Bolivia has furthered understanding in developmental psychology.

(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 option 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 option with a cross ☒.

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

OPTION 1: CRIMINOLOGICAL PSYCHOLOGY

6 (a) Define what is meant by the term 'anti-social behaviour'.

(1)

(b) Dwayne is listening to music in his garden. His neighbour complains and demands that he turn his music off because he does not like the band. Dwayne refuses to turn the music off. The neighbour becomes very angry and throws a brick at Dwayne's car, smashing the windscreen. A passer-by calls the police.

Describe which behaviour the police would investigate as a criminal offence.

(2)

(Total for Question 6 = 3 marks)

7 Researchers were interested in the relationship between the attractiveness of an offender and the length of their sentence. They observed local court cases, noting down the attractiveness of an offender on a scale of 0 to 10 (with 10 being the most attractive) and the length of their sentence to the nearest whole year.

(a) Complete **Table 2** and calculate Spearman's rank correlation coefficient.

You **must** give your answer to two decimal places.

The formulae and statistical tables can be found at the front of the paper.

(4)

Attractiveness score out of 10	Rank 1	Length of sentence in years	Rank 2	D	d^2
1	1	10	9	-8	
3	2	7	7	-5	
4	3	5	5	-2	
5	4	8	8	-4	
8	7	2	2	5	
6	5	4	4	1	
9	8	3	3	5	
7	6	6	6	0	
10	9	1	1	8	
				Total:	

Table 2

Space for calculations

Spearman's rank correlation coefficient .....

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(b) Explain **one** weakness of using a correlational research method to investigate attractiveness and length of sentencing.

(2)

(c) Explain **one** improvement that the researchers could make to this study.

(2)

(Total for Question 7 = 8 marks)

8 Cassie has started to become aggressive with her work colleagues. She has shouted at her boss and slammed a door as someone was walking through it. At home, Cassie is arguing with her husband and has threatened to hit him.

Her husband believes the aggressive behaviour began when Cassie started to watch a new television series about street fighting and crime.

Describe, using social learning theory, how the television series may be influencing Cassie's behaviour.

(5)

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(Total for Question 8 = 5 marks)

9 In criminological psychology, you will have learned about the following classic study in detail:

- Loftus and Palmer (1974) Reconstruction of an automobile destruction: An example of the interaction between language and memory.

Assess the credibility of the study by Loftus and Palmer (1974).

(8)

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(Total for Question 9 = 8 marks)

10 Evaluate the effectiveness of cognitive behavioural therapy (CBT) as a therapy for offenders.

(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) Define what is meant by the term 'daily hassles'.

(1)

(b) Agnetha is getting married next month. She has had to take time off work to cope with the planning for the wedding. On her way to a planning meeting with the caterers at the wedding venue, Agnetha gets stuck in traffic. She is feeling increasingly stressed.

Describe which experience would be considered a life event that could cause Agnetha stress.

(2)

(Total for Question 11 = 3 marks)

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12 Researchers were interested in the relationship between the number of close friends an individual has and their stress levels. They asked a group of people to state how many close friends they had and to complete a self-report questionnaire to rate their level of stress out of 10 (with 10 being high levels of stress).

(a) Complete **Table 3** and calculate Spearman's rank correlation coefficient.

You **must** give your answer to two decimal places.

The formulae and statistical tables can be found at the front of the paper.

(4)

Number of close friends	Rank 1	Self-rated level of stress score out of 10	Rank 2	D	d^2
1	1	10	9	-8	
3	2	7	7	-5	
4	3	5	5	-2	
5	4	8	8	-4	
8	7	2	2	5	
6	5	4	4	1	
9	8	3	3	5	
7	6	6	6	0	
10	9	1	1	8	
				Total:	

Table 3

Space for calculations

Spearman's rank correlation coefficient .....

(b) Explain **one** weakness of using a correlational research method to investigate the number of close friends an individual has and their level of stress.

(2)

(c) Explain **one** improvement that the researchers could make to this study.

(2)

(Total for Question 12 = 8 marks)

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13 Cassie has started to feel unwell after being given additional responsibilities at work three months ago. She has had several minor illnesses and has now developed high blood pressure. Cassie feels that she cannot cope with her day-to-day work and is always feeling tired, but finds it difficult to sleep.

Her husband believes the symptoms indicate that Cassie is suffering with stress and thinks she should visit her doctor.

Describe, using physiological explanations of stress, how the additional work responsibilities may result in Cassie experiencing stress.

(5)

(Total for Question 13 = 5 marks)

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

- Nakonz and Shik (2009) And all your problems are gone: religious coping strategies among Phillipine migrant workers in Hong Kong.

Assess the credibility of the study by Nakonz and Shik (2009).

(8)

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(Total for Question 14 = 8 marks)

15 Evaluate whether individual differences can affect stress.

(8)

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(Total for Question 15 = 8 marks)

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

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