Please check the examination details below before entering your candidate information

Candidate surname	Other names

Pearson Edexcel
International Advanced Level

Centre Number	Candidate Number

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.
- Good luck with your examination.

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. Write your answers in the spaces provided.

1 In your studies of theories of attachment, you will have learned about the following study in detail:

- Bowlby 44 Juvenile Thieves (1944).

(a) State **one** conclusion made by Bowlby in the 44 Juvenile Thieves (1944) study.

(1)

(b) Explain **one** strength of Bowlby's 44 Juvenile Thieves (1944) study.

(2)

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(c) Explain **one** way in which Bowlby's 44 Juvenile Thieves (1944) study could have been improved.

(2)

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(Total for Question 1 = 5 marks)

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2 Birgit is interested in the social development of children, she wanted to see whether boys and girls were involved in different types of play.

She observed a group of three- to four-year-old children at their local nursery school during an outdoor free play session.

She recorded two types of play:

- playing alone
- playing with other children.

Each child was recorded once based on the first type of play they were involved in.

The data gathered by Birgit is shown in **Table 1**.

Type of play	Boys	Girls
Playing alone	11	3
Playing with other children	2	8

Table 1

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(a) Calculate the chi-squared for the data gathered by Birgit in her investigation by completing **Table 2**.

Your answers should all be correct to **two** decimal places.

(4)

		Observed	**Expected**	**O-E**	**$(O-E)^2$**	**$(O-E)^2/E$**
Playing alone	Boys	11	7.58			
	Girls	3	6.42			
Playing with other children	Boys	2	5.42			
	Girls	8	4.58			
				Chi-squared =		

Table 2

Space for calculations

(b) Explain **one** improvement Birgit could make to her investigation.

(2)

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(Total for Question 2 = 6 marks)

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3 Dexter planned an investigation to see whether children could understand that a quantity stays the same even if the size, shape or container changes.

He used a conservation task with a group of five- to six-year-olds in the pre-operational stage of development. Dexter used two identical containers that had the same amount of liquid in them. He then asked the children to pour one container of liquid into a taller container.

He used a clinical interview method for his investigation.

(a) Describe how Dexter could use a clinical interview method in his investigation.

(3)

(b) Explain **one** strength of Dexter using a clinical interview method in his investigation.

(2)

(Total for Question 3 = 5 marks)

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

- Cassibba et al. (2013).

Evaluate the study by Cassibba et al. (2013).

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(Total for Question 4 = 8 marks)

5 Assess the practical applications of the study by O'Connor et al. (2013).

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(Total for Question 5 = 8 marks)

TOTAL FOR SECTION A = 32 MARKS

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 In your studies of criminological psychology, you will have learned about factors influencing eyewitness memory.

(a) Define 'post-event information' as a factor that influences eyewitness memory.

(1)

(b) Explain **one** reason why weapon focus may influence eyewitness memory.

(2)

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(c) Explain **one** ethical issue that should be considered when researching factors that influence eyewitness memory.

(2)

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(Total for Question 6 = 5 marks)

7 Ciara is 15 years old and has a history of antisocial behaviour.

She shouts aggressively at the neighbours every time they walk by her house. Ciara plays her music very loudly and insults people when they ask her to turn it down. She has also occasionally thrown rubbish at the neighbours.

Ciara regularly steals money from her mother. She lies when her mother asks her if she has taken the money and continues to steal from her.

Describe how antisocial personality disorder could explain Ciara's behaviour.

(Total for Question 7 = 4 marks)

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8 Justify self-fulfilling prophecy as an explanation for crime and antisocial behaviour.

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(Total for Question 8 = 2 marks)

9 Ayesha investigated the effects of stress on the reliability of eyewitness memory. She gathered a volunteer sample of participants from her local town by placing an advertisement in the local newspaper.

Ayesha allocated the participants to two groups, half the participants to a stressful condition and half to a non-stressful condition. She showed the participants a video clip of a handbag being stolen and asked them to recall facts about the incident.

(a) Identify the experimental research design used by Ayesha in her investigation.

(1)

(b) Explain **one** strength of Ayesha using a volunteer sample in her investigation.

(2)

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(c) Ayesha recorded the number of facts correctly recalled in the stressful or non-stressful conditions. She analysed her results to see if there was any difference between male and female recall.

Her results are shown in **Table 3**.

	Mean number of facts correctly recalled by males	Mean number of facts correctly recalled by females
Condition A stressful	7	6
Condition B non-stressful	17	10

Table 3

State **two** conclusions that could be made using the information in **Table 3**.

(2)

1 .....

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(Total for Question 9 = 5 marks)

10 Evaluate how the characteristics of the defendant could influence jury decision making.

(8)

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(Total for Question 10 = 8 marks)

11 Vaughan has always had a problem controlling his anger and becomes easily upset. If someone says something he does not like, he will throw the nearest object and becomes very aggressive.

Vaughan assaulted his friend because he thought the friend had insulted him. He was sentenced to six months in prison for the assault and must undergo Cognitive Behavioural Therapy (CBT).

Discuss how Cognitive Behavioural Therapy (CBT) could be used to help Vaughan to control his anger.

You **must** make reference to the context in your answer.

(8)

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(Total for Question 11 = 8 marks)

TOTAL FOR SECTION B OPTION 1 = 32 MARKS

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SECTION B

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

OPTION 2: HEALTH PSYCHOLOGY

12 In your studies of health psychology, you will have learned about coping strategies.

(a) Define what is meant by a 'problem focused' coping strategy.

(1)

(b) Explain **one** reason why emotion focusing may be an effective coping strategy for stress.

(2)

(c) Explain **one** ethical issue that should be considered when researching the effectiveness of coping strategies.

(2)

(Total for Question 12 = 5 marks)

13 Ciara is 15 years old and has a history of stress.

Her classmate, Janice, recently achieved higher marks than Ciara in a maths test. Janice also became the top goal scorer in the school football team. Ciara is trying extra hard at football to be better than Janice. She is also impatiently waiting for the results of a recent maths test to see if she has done better than Janice.

Ciara is rude to Janice, tries to get her own way and ignores any suggestions that Janice makes when they are together.

Describe how Type A personality could explain Ciara's behaviour.

(Total for Question 13 = 4 marks)

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14 Justify Selye's General Adaptation Syndrome (GAS) as an explanation for stress.

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(Total for Question 14 = 2 marks)

15 Ayesha investigated whether receiving social support from family and friends reduced the effects of stress more quickly than coping alone. She gathered a volunteer sample of patients from her local clinic by placing an advertisement in the clinic waiting room.

The patients were split into two groups, one group was of the patients having coped alone, and the other group was those who had the support of family and friends. She asked the patients to record the time it had taken them to recover from their stress-related issues.

(a) Identify the experimental research design used by Ayesha in her investigation.

(1)

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(b) Explain **one** strength of Ayesha using a volunteer sample in her investigation.

(2)

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(c) Ayesha recorded the number of months taken to recover from stress-related issues. She analysed her results to see if there was any difference between the recovery times for males and females.

Her results are shown in **Table 4**.

	Mean number of months taken to recover by males	**Mean number of months taken to recover by females**
Group A Coping alone	17	10
Group B Support of family and friends	7	6

Table 4

State **two** conclusions that could be made using the information in **Table 4**.

(2)

1 .....

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(Total for Question 15 = 5 marks)

16 Evaluate the Hypothalamic-Pituitary-Adrenal (HPA) Axis as a complete explanation of stress.

(8)

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(Total for Question 16 = 8 marks)

17 Vaughan has always felt anxious when he meets people he does not know. He gets very upset at the thought of meeting new people and prefers to stay at home to avoid contact with strangers.

He is experiencing anxiety attacks because his friend has invited him to her 40th birthday party. He does not want to let her down by not going but he is very worried by the thought of being with a crowd of unknown people.

Discuss how Cognitive Behavioural Therapy (CBT) could be used to help Vaughan to control his anxiety.

You **must** make reference to the context in your answer.

(8)

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(Total for Question 17 = 8 marks)

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

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