Please check the examination details below before entering your candidate information

Candidate surname	Other names

Centre Number | Candidate Number

Pearson Edexcel International Advanced Level

Tuesday 27 May 2025

Morning (Time: 1 hour 30 minutes)

Paper reference **WPS03/01**

Psychology

International Advanced Level

UNIT 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

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

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.

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SECTION A

Developmental Psychology

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

1 Gianna is six months old. Her father likes to play games with her. He shows Gianna her favourite teddy bear. He hides the teddy bear while she is watching but she does not look for it once it is out of sight.

(a) Identify which stage of development Gianna is in, according to Piaget's stages of cognitive development.

(1)

(b) Describe, using your knowledge of Piaget's stages of cognitive development, why Gianna does not look for the teddy bear.

(2)

(c) Gianna's brother, Micah, is five years old. His teacher showed him two equal glasses of water and asked him if the quantity of the liquid was the same in each glass. Micah said yes. The teacher then poured one of the glasses of water into a taller, thinner glass. The teacher asked Micah for a second time if the quantity of the liquid in each glass was still the same, and he said no.

Describe why Micah might think that one glass has more liquid than the other, when asked for the second time.

(2)

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(Total for Question 1 = 5 marks)

2 Mary Ainsworth developed the Strange Situation procedure to understand the types of attachment in children.

(a) Explain **one** improvement that could be made to the Strange Situation procedure.

(2)

Attachment types in children have also been studied cross-culturally.

(b) Explain **one** reason why cross-cultural research is used to study attachment types in children.

(2)

(Total for Question 2 = 4 marks)

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3 Bibha and Dalvie carried out an overt observation at their local nursery to investigate which types of play were more successful at encouraging children to play together. They introduced the children to activities such as building with blocks, drawing pictures, playing hide and seek and completing puzzles.

(a) Describe how Bibha and Dalvie could have carried out their overt observation at the local nursery.

(2)

The data gathered by Bibha and Dalvie in the observation is shown in **Table 1**.

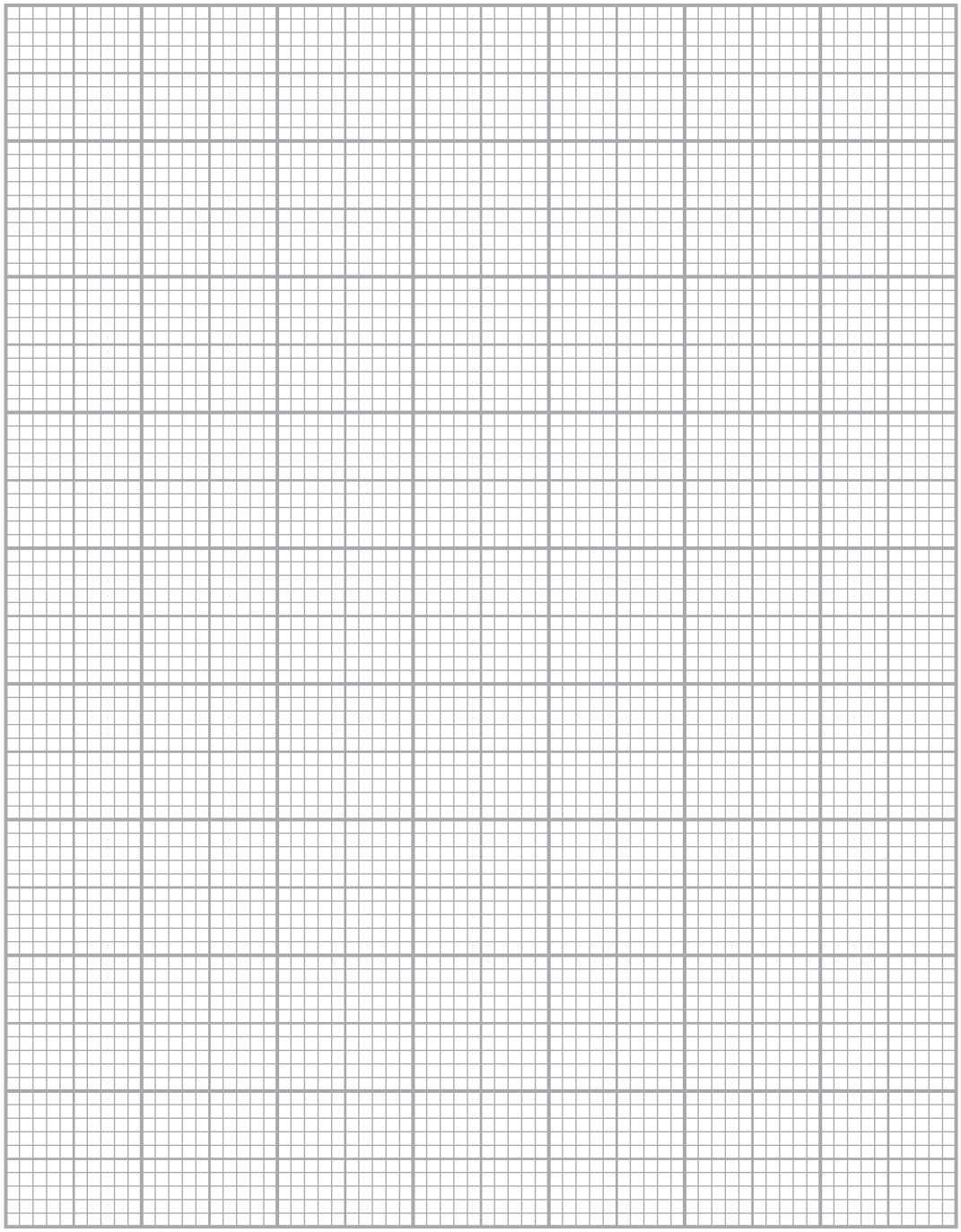
	Types of play activity			
	Building with blocks	**Drawing a picture**	**Playing hide and seek**	**Completing a puzzle**
Total number of children who played together in each activity	**8**	**5**	**10**	**6**

Table 1

(b) Draw a bar chart to illustrate the data given in **Table 1**.

(3)

Title



(c) Describe **one** weakness of Bibha and Dalvie using an overt observation to investigate which types of play encouraged playing together.

(2)

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(Total for Question 3 = 7 marks)

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4 Evaluate Erikson's stages of psychosocial development.

(8)

(Total for Question 4 = 8 marks)

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

- Ashdown and Bernard (2012)
- Ding et al. (2014)

Assess whether your contemporary study has furthered our understanding of developmental psychology.

(8)

Chosen Study:

(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 questions in Option 1, put a cross in the box ☒ .

OPTION 1: CRIMINOLOGICAL PSYCHOLOGY

6 Hannah spends several hours a day watching videos on a social media platform. She watches videos where people challenge each other to behave in criminal and anti-social ways. The videos do not show the people being punished for their behaviours. Hannah has recently been caught stealing from a shop and using offensive language towards the other customers.

Describe how social learning from the media may account for Hannah's criminal and anti-social behaviour.

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(Total for Question 6 = 2 marks)

7 Levi is a psychologist at a prison and wants to investigate whether Cognitive Behavioural Therapy (CBT) would be an effective treatment for offenders convicted of crimes such as assault. He arranged for the offenders to attend a six-week Cognitive Behavioural Therapy (CBT) programme.

He asked the offenders to complete a self-report questionnaire at the beginning of the therapy to rate their levels of aggression. Levi also asked them to complete the same self-report questionnaire at the end of the six-week period so that he could measure the effectiveness of the programme.

(a) Explain **one** positive effect and **one** negative effect of Levi using a Cognitive Behavioural Therapy (CBT) programme to treat the offenders.

(4)

Positive effect

Negative effect

(b) Describe **two** reasons why Levi may have chosen to gather primary data rather than secondary data for his investigation.

(4)

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2 .....

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(Total for Question 7 = 8 marks)

8 Atisha carried out an investigation into whether personality traits were linked with different criminal acts and anti-social behaviour.

Atisha conducted a meta-analysis of 200 articles about criminals, found in a well-established database. She found that there were two key personality traits mentioned in the articles, psychopathic traits, and low self-control. She calculated the mean number of criminal acts committed by the two different personality traits.

The results of the investigation are shown in **Table 2**.

	Mean number of acts committed by criminals with psychopathic traits	**Mean number of acts committed by criminals with low self-control**
Violent crime	25.5	14.2
Anti-social behaviour	12.8	21.7
Substance abuse	16.1	23.4

Table 2

(a) Atisha concluded that criminals who are judged to have low self-control are more likely to engage in substance abuse than violent crime.

Justify Atisha's conclusion with reference to the data in **Table 2**.

(2)

(b) Explain **one** way that Atisha could improve her investigation in terms of reliability.

(2)

(c) Atisha arranged to do a follow-up study at her local prison. She used a semi-structured interview to explore why the prisoners may have been involved in certain types of criminal behaviour.

Describe **one** ethical guideline that could be considered when using semi-structured interviews.

(2)

(Total for Question 8 = 6 marks)

9 Evaluate the effect of weapons focus on the reliability of eye-witness testimony.

(8)

(Total for Question 9 = 8 marks)

10 Assess whether using a psychological (case) formulation can help us understand the offending behaviour of an individual.

(8)

(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 Hannah watches videos on a social media platform. She shares the videos several times a day with her friends. Hannah gets very upset if they do not acknowledge that they have seen them. She has experienced chest pains when her friends do not react positively or like the videos she has shared. Hannah has recently been diagnosed with high levels of stress.

Describe how cortisol may account for Hannah's high levels of stress.

(Total for Question 11 = 2 marks)

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12 Levi is a doctor at a health clinic and wants to investigate whether Cognitive Behavioural Therapy (CBT) would be an effective treatment for anxiety disorders such as generalised anxiety disorder. He arranged for his patients to attend a six-week Cognitive Behavioural Therapy (CBT) programme.

He asked his patients to complete a self-report questionnaire at the beginning of the therapy to rate their levels of anxiety. Levi also asked them to complete the same self-report questionnaire at the end of the six-week period so that he could measure the effectiveness of the programme.

(a) Explain **one** positive effect and **one** negative effect of Levi using a Cognitive Behavioural Therapy (CBT) programme to treat anxiety disorders.

(4)

Positive effect

Negative effect

(b) Describe **two** reasons why Levi may have chosen to gather primary data rather than secondary data for his investigation.

(4)

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2 .....

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(Total for Question 12 = 8 marks)

13 Atisha carried out an investigation into whether personality traits were linked with stress.

Atisha conducted a meta-analysis of 200 articles about stress in social situations, found in a well-established database. She found that there were two key personality traits mentioned in the articles, high sense of control and introverted personality. She calculated the mean number of episodes of anxiety experienced by the two different personality traits.

The results of the investigation are shown in **Table 3**.

	Mean number of episodes of anxiety in those with high sense of control	**Mean number of episodes of anxiety in those with an introverted personality**
Attending a party	25.5	14.2
Going to work or school	12.8	21.7
Starting conversations	16.1	23.4

Table 3

(a) Atisha concluded that people with an introverted personality are more likely to experience an episode of anxiety when starting conversations than from attending a party.

Justify Atisha's conclusion with reference to the data in **Table 3**.

(2)

(b) Explain **one** way that Atisha could improve her investigation in terms of reliability.

(2)

(c) Atisha arranged to do a follow-up study at her local health clinic. She used a semi-structured interview to explore why the patients may have found certain social situations difficult.

Describe **one** ethical guideline that could be considered when using semi-structured interviews.

(2)

(Total for Question 13 = 6 marks)

14 Evaluate the use of serotonin and norepinephrine reuptake inhibitors (SNRIs) as a treatment for anxiety.

(8)

(Total for Question 14 = 8 marks)

15 Assess brain regions as an explanation for stress.

(8)

(Total for Question 15 = 8 marks)

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

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