

Please check the examination details below before entering your candidate information

Candidate surname

Other names

Centre Number

Candidate Number

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## Pearson Edexcel International Advanced Level

Time 2 hours

Paper  
reference

**WPS04/01**

### Psychology

International Advanced Level

**PAPER 4: Clinical Psychology and Psychological Skills**

**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 96.
- 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.
- Try to answer every question.
- 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

N	Level of significance for a one-tailed test				
	0.05	0.025	0.01	0.005	0.0025
N	Level of significance for a two-tailed test				
	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

$$X^2 = \sum \frac{(O-E)^2}{E}$$

$$df = (r - 1)(c - 1)$$

### 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

<i>n</i>	Level of significance for a one-tailed test		
	0.05	0.025	0.01
	Level of significance for a two-tailed test		
	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**  
**CLINICAL PSYCHOLOGY**

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

**1** In your studies of clinical psychology, you will have learned about one of the following mental health disorders:

- Unipolar Depression
- Anorexia Nervosa.

(a) Describe **one** symptom and **one** feature of your chosen disorder.

(4)

Chosen disorder

Symptom

Feature

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(b) Explain **two** weaknesses of one non-biological explanation for your chosen disorder.

(4)

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**(Total for Question 1 = 8 marks)**

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- 2 Mitchell investigated how well a person with anxiety feels they can cope with day-to-day life events. He gave a questionnaire to 10 participants diagnosed with anxiety and ten participants without anxiety.

A score of 15 or above out of 20 on the questionnaire is considered a high score that indicates extreme difficulty in coping with day-to-day life events. Medium scores indicate some difficulty in coping with day-to-day life events, with low and very low scores indicating little or no difficulty in coping with day-to-day life events.

His results are shown in **Table 1**.

Questionnaire score out of 20	Number of participants with anxiety	Number of participants without anxiety
High score (15 or more)	8	1
Medium score (10 to 14)	1	2
Low score (5 to 9)	0	2
Very low score (4 or less)	1	5

**Table 1**

- (a) Give the number of participants with anxiety who had a high score on the questionnaire as a fraction of all participants with anxiety.

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

(1)

**Space for calculations**

Fraction .....

- (b) Calculate the percentage of participants without anxiety who had a high score as a percentage of all participants without anxiety.

(1)

**Space for calculations**

Percentage .....





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(c) Explain **two** conclusions that Mitchell could make from the data in **Table 1** about how well people cope with day-to-day life events.

(4)

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(d) Explain **one** weakness of Mitchell using a questionnaire in his investigation.

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**(Total for Question 2 = 8 marks)**





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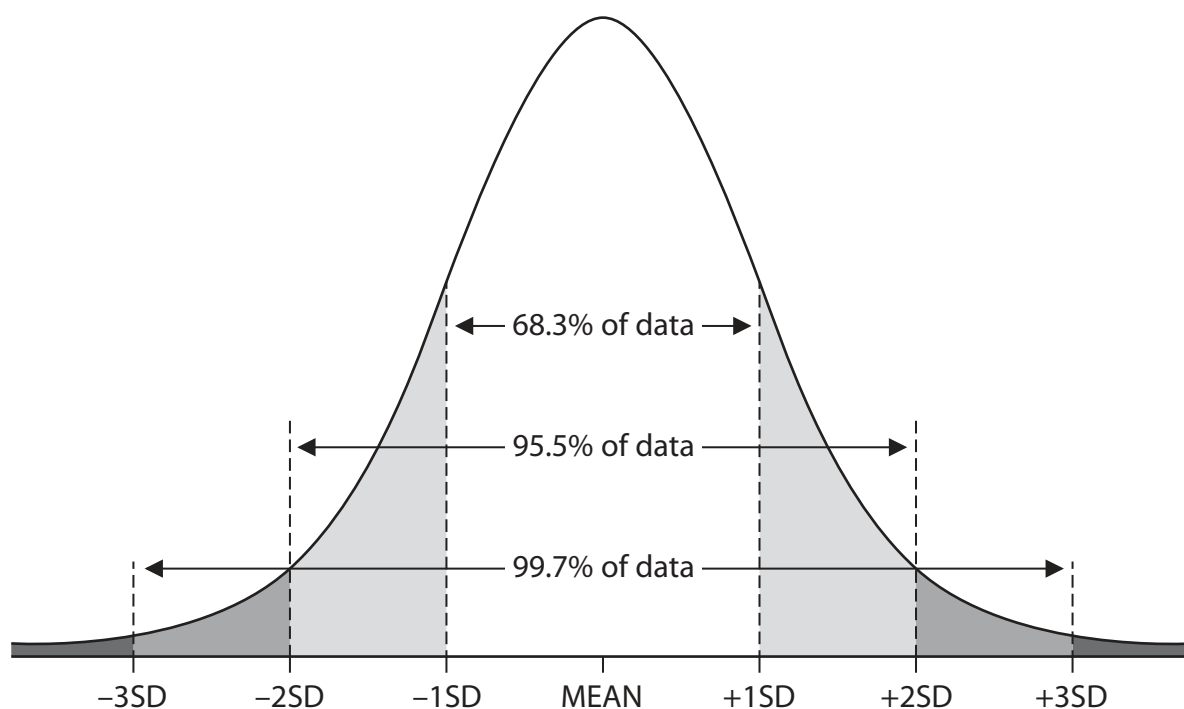
**(Total for Question 3 = 8 marks)**

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- 4 Sarah is a psychology teacher. She is using the statistical infrequency definition of abnormality to explain to her students how abnormality could be distributed across a population. Sarah shows her students the distribution curve in **Figure 1**.



**Figure 1**

- (a) Describe, using **Figure 1**, when a behaviour would be considered abnormal.

(2)

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(b) Explain **one** weakness of using statistical infrequency to define abnormality.

(2)

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**(Total for Question 4 = 4 marks)**

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**SECTION B**

**CLINICAL PSYCHOLOGY**

**Answer the question. Write your answer in the space provided.**

- 6** Evaluate the function of neurotransmitters as an explanation of schizophrenia.

**(16)**

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(Total for Question 6 = 16 marks)

**TOTAL FOR SECTION B = 16 MARKS**



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**SECTION C**  
**PSYCHOLOGICAL SKILLS**

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

**7** When researching psychological topics, a researcher will need to consider control issues in the research.

(a) Explain how a researcher may attempt to overcome order effects when conducting psychological research.

(2)

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(b) Explain how a researcher may attempt to overcome social desirability when conducting psychological research.

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**(Total for Question 7 = 4 marks)**

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8 Daisy wanted to use a correlational research method to investigate whether aggression and exposure to media violence were linked. She decided to use a questionnaire to gather her data.

(a) Give **one** closed question Daisy could use in her questionnaire.

(1)

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(b) Daisy intended to gather a sample of participants by visiting a large shopping centre and asking anyone who is available if they would answer her questions.

Identify the sampling technique that Daisy intended to use.

(1)

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- (c) Daisy completed her investigation and analysed her data. She scored responses to the questionnaires for aggression, with a score of 20 indicating very aggressive. Daisy also scored the exposure to media violence, with a score of 20 indicating significant exposure to media violence.

Calculate the Spearman's rank correlation coefficient for the data gathered by Daisy by completing **Table 2**.

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

You **must** show your working out and give your answer to **three** decimal places.

(4)

Score for aggression out of 20	Rank 1	Score for exposure to media violence out of 20	Rank 2	$d$	$d^2$
9	4	10	4		
15	7	13	6		
14	6	18	8		
8	3	5	1		
19	8	14	7		
3	1	7	2		
11	5	9	3		
4	2	11	5		
<b>Total for <math>d^2</math></b>					

**Table 2**

**Space for calculations**

Spearman's rank correlation coefficient .....



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(d) Interpret the Spearman's rank correlation coefficient from 8(c) in terms of the strength **and** direction for Daisy's investigation.

(2)

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(e) Explain **one** weakness with Daisy using a correlational research method to investigate exposure to media violence and aggression.

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**(Total for Question 8 = 10 marks)**

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(b) Explain **one** strength of Wayne using an observation to investigate the pro-social helping behaviour of males and females.

(2)

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**(Total for Question 9 = 6 marks)**

**TOTAL FOR SECTION C = 20 MARKS**



SECTION D

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

10 One key question for society is whether psychological knowledge can help explain the onset and symptoms of Alzheimer's disease.

Alzheimer's disease is a neurological disorder characterised by memory loss, concentration loss, confusion, and changes in mood. These deteriorate as the disease progresses.

Becker (1988) claimed that memory loss associated with Alzheimer's disease may have multiple cognitive components. Working memory appears to be impaired due to failures in the central executive system. Memory impairments may also be due to poor encoding.

Schwindt and Black (2009) studied how the medial temporal lobe could play a role in Alzheimer's disease. They conducted a meta-analysis of fMRI studies on patients with Alzheimer's disease compared to normal controls. They concluded that Alzheimer's disease patients show decreased activation in the medial temporal lobe.

Discuss the key question of whether psychological knowledge can help explain the onset and symptoms of Alzheimer's disease. You should use concepts, theories and/or research studied in your psychology course.

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

(8)

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(Total for Question 10 = 8 marks)

**TOTAL FOR SECTION D = 8 MARKS**





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**(Total for Question 11 = 20 marks)**

**TOTAL FOR SECTION E = 20 MARKS**  
**TOTAL FOR PAPER = 96 MARKS**



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