Candidate surname | Other names

Centre Number | Candidate Number

Pearson Edexcel International Advanced Level

Time 2 hours

Paper reference **WPS04/01**

Psychology
International Advanced Level
PAPER 4: Clinical Psychology and Psychological Skills

Calculators may be used. | 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 ▶

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
	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

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

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

CLINICAL PSYCHOLOGY

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

1 In your studies of clinical psychology, you will have learned about the following classic study in detail:

- Rosenhan (1973).

(a) Describe the hospitals sampled by Rosenhan (1973) in his study.

(2)

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(b) Describe **one** way that qualitative data was gathered in the study by Rosenhan (1973).

(2)

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(c) Explain **two** ways that the findings from the study by Rosenhan (1973) could be used to improve the care of inpatients.

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(d) State **one** improvement that could be made to the selection of confederate pseudo-patients who took part in the study by Rosenhan (1973).

(1)

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(Total for Question 1 = 9 marks)

2 Alan plans to investigate whether the stress levels of individuals increase when facing situations where there is uncertainty about the outcome. He intends to recruit a volunteer sample of participants who will be told that they must be successful at an interview to take part in his research about stress.

Alan will use the interview as the situation with uncertainty. He plans to measure the stress levels of the volunteers using a heart rate monitor that they will wear during their interview.

(a) Describe **one** participant variable that Alan may need to consider in his investigation.

(2)

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(b) Describe how Alan could recruit a volunteer sample of participants for his investigation.

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(c) Describe **one** demand characteristic that may influence the findings of Alan's investigation.

(2)

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(d) Describe how Alan could use a control group in his investigation.

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(Total for Question 2 = 9 marks)

3 A statistical infrequency definition can be used to define abnormality.

Explain **two** weaknesses of using a statistical infrequency definition to define abnormality.

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(Total for Question 3 = 4 marks)

4   In your studies of clinical psychology, you will have learned about different therapies that can be used as a treatment for schizophrenia, including drug therapy and family therapy.

(a) Describe drug therapy as a treatment for schizophrenia.

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(b) Describe family therapy as a treatment for schizophrenia.

(2)

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(Total for Question 4 = 4 marks)

5 Analyse whether cultural issues have an impact on mental health diagnosis.

(6)

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(Total for Question 5 = 6 marks)

TOTAL FOR SECTION A = 32 MARKS

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SECTION B

CLINICAL PSYCHOLOGY

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

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

- Suzuki et al. (2014).

Evaluate the study by Suzuki et al. (2014) in terms of reliability, validity, and generalisability.

(16)

(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 Rebecca is researching the influence of leading questions on the accuracy of recall using a field experiment. She asks a confederate to enter a shop and then drop his shopping on the floor to gain attention. The confederate is wearing a blue coat with grey trousers.

Rebecca then asks some shoppers to recall the colour of the clothing. She asks 10 of the shoppers a leading question of "what shade of grey was the coat?". She asks 10 other shoppers a non-leading question of "what colour was the coat?".

State a fully operationalised null hypothesis for Rebecca's field experiment.

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(Total for Question 7 = 2 marks)

8 Ronald used a correlational research method to investigate the relationship between eating chocolate and depressive symptoms. He asked 10 participants to record the total grams of chocolate they ate over seven days and also self-rate their depressive symptoms each day for the seven days.

Depressive symptoms were scored on a scale of 0 (no symptoms) to 10 (continuous symptoms). Ronald then calculated the mean score for depressive symptoms for each participant.

The data collected by Ronald is shown in **Table 1**.

Participant	Total grams of chocolate eaten in a seven-day period	Mean score for self-rated depressive symptoms
A	80	9
B	200	5
C	240	4
D	200	5
E	100	8
F	180	6
G	300	2
H	140	6
I	60	9
J	280	2

Table 1

(a) Calculate, using the data in **Table 1**, the percentage of participants who recorded eating 200 grams of chocolate or less, as a percentage of all participants.

(1)

Space for calculations

Percentage ....

(b) Calculate, using the data in **Table 1**, the median score for the total grams of chocolate eaten by the participants in the seven-day period.

(1)
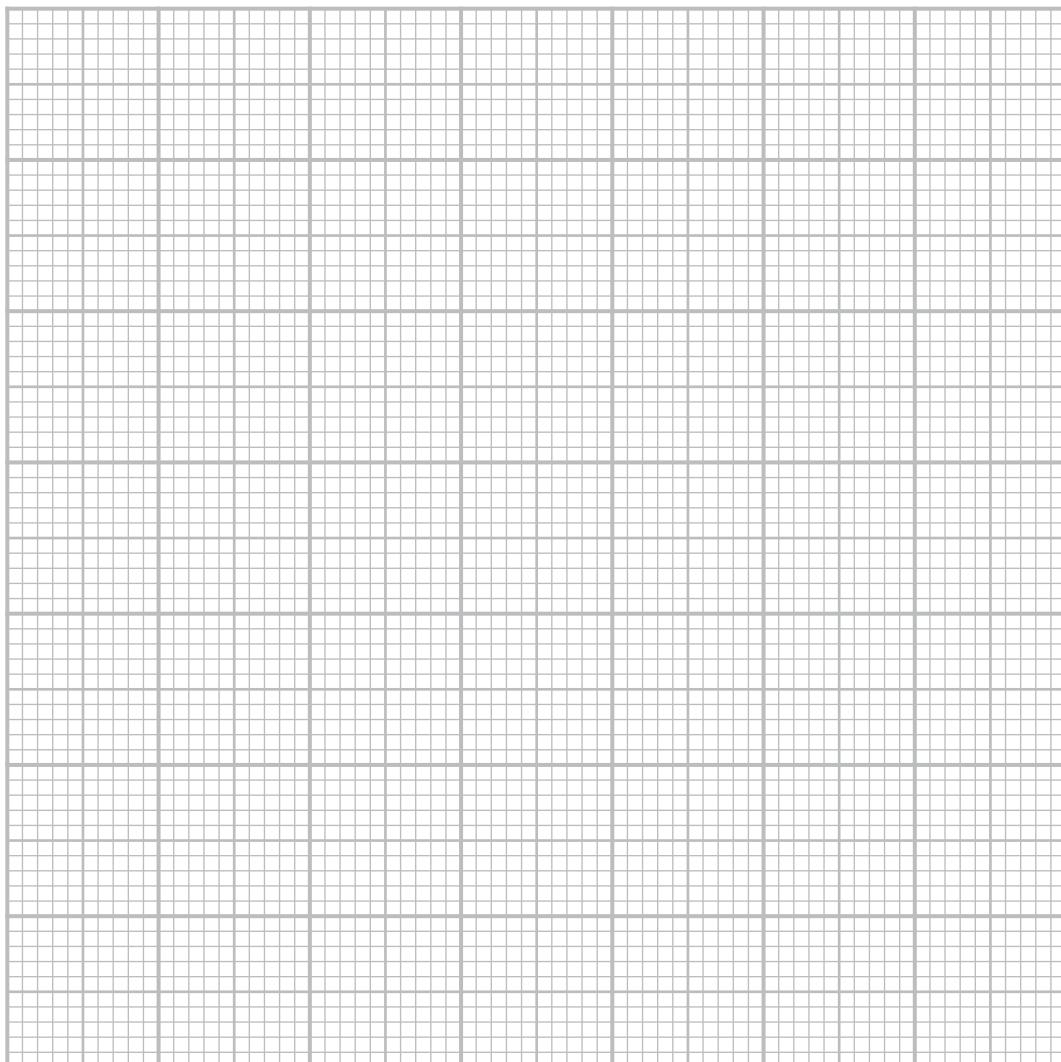
Space for calculations

Median ....

(c) Draw a scatter diagram for the data shown in **Table 1**.

(3)

Title ....

(d) Interpret the strength **and** direction of the correlation between eating chocolate and depressive symptoms shown in your scatter diagram in 8(c).

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(Total for Question 8 = 7 marks)

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9 Bao tested the effectiveness of aromatherapy in reducing anxiety.

Aromatherapy is the use of scented oils, for example in massage, candles or bathing products, to help improve physical and emotional health.

Bao asked eight participants to record the number of anxiety attacks they had each month for two months. During the first month the participants did not use aromatherapy, during the second month the participants did use aromatherapy.

(a) Calculate the Wilcoxon Signed Ranks test for Bao's data shown in **Table 2**.

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

(2)

Participant	Month one	Month two	Difference	Ranked difference
A	24	19	5	7
B	21	18	3	5.5
C	18	16	2	4
D	20	14	6	8
E	15	16	−1	2
F	17	16	1	2
G	11	12	−1	2
H	14	17	−3	5.5

Table 2

Space for calculations

T value ....

(b) Determine, with reference to the data, whether Bao's results are significant at $P \leq 0.01$ for a one-tailed (directional) test.

The critical values table can be found at the front of this paper.

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(c) Explain **one** conclusion that can be made from the results of Bao's investigation.

(2)

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(Total for Question 9 = 5 marks)

10 Bonique intends to research the effectiveness of reinforcement and punishment in shaping children's behaviour. She must meet the requirements of the UNCRC (1989) and BPS Code of Ethics and Conduct (2009) in her research.

(a) Describe how the UNCRC (1989) right to participation could be met in Bonique's research.

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(b) Explain **two** ethical requirements for the protection of participants that Bonique should consider when designing her research.

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(Total for Question 10 = 6 marks)

TOTAL FOR SECTION C = 20 MARKS

SECTION D

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

11 One key question for society is whether treatment should be offered by airlines to passengers who have a phobia of flying.

A phobia is a clinically diagnosed overwhelming and extreme fear. Treatment for phobias is usually accessed through mental health services. Some major airports and airlines also offer treatment programmes to help passengers with fears and phobias of flying. Most of these require the passenger to pay for the treatment programme and the treatments may only be a one-day course or be offered online.

Exposure therapy is when a patient confronts the fear-inducing situation until they are able to remain calm. Rothbaum et al. (2006) conducted clinical trials of virtual reality exposure therapy and compared it to standard exposure therapy. At 6 and 12 months after treatment, they found that more than 70% of the participants from both treatment groups were still able to take flights. This suggests that a phobia of flying can be reduced using clinical therapies.

Discuss the key question of whether treatment should be offered by airlines to passengers who have a phobia of flying. You should use concepts, theories and/or research studied in learning theories and clinical psychology.

You must make reference to the context in your answer.

(8)

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(Total for Question 11 = 8 marks)

TOTAL FOR SECTION D = 8 MARKS

SECTION E

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

12 Evaluate whether gender issues influence psychological research.

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(Total for Question 12 = 20 marks)

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

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