GradeMax

Write your name here

| Surname | Other names |
|---|---|
| | |

**Pearson Edexcel**
**International Advanced Level**

Centre Number | | | | | |

Candidate Number | | | | |

# Psychology

## International Advanced Level
## Paper 4: Clinical Psychology and Psychological Skills

Wednesday 14 June 2017 – Afternoon
**Time: 2 hours**

Paper Reference
**WPS04/01**

**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.
- 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 BEGINS ON THE NEXT PAGE.**

## SECTION A

## CLINICAL PSYCHOLOGY

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

**1** Clinical psychologists define abnormality in a number of different ways. One of these definitions is the statistical infrequency definition.

(a) Describe how statistical infrequency would be used to diagnose a particular behaviour as abnormal.

**(2)**

(b) Explain **one** strength of using a statistical infrequency definition to make a diagnosis of abnormality in clinical psychology.

**(2)**

(c) Explain **one** weakness of using a statistical infrequency definition to make a diagnosis of abnormality in clinical psychology.

**(2)**

**(Total for Question 1 = 6 marks)**

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**2** Carlos is a 24-year-old man who has been referred to a clinical psychologist after several incidents of being admitted to hospital for unusual behaviour. The clinical psychologist suspects that Carlos may be showing symptoms of schizophrenia.

(a) Identify **two** symptoms of schizophrenia that Carlos may experience.

**(2)**

1 .....

.....

2 .....

.....

(b) The clinical psychologist believes the cause of Carlos' schizophrenia is an excess of the neurotransmitter dopamine. He decides to use drug therapy as a treatment for Carlos.

Explain **three** weaknesses of using drug therapy as a treatment for schizophrenia.

**(6)**

1 .....

.....

.....

.....

.....

2 .....

.....

.....

.....

.....

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3 .....

.....

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.....

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

**3** Suzuki et al (2014) studied inpatients with schizophrenia.

(a) Describe how Suzuki et al (2014) sampled participants for their control group in this study.

**(2)**

(b) Suzuki et al (2014) concluded that the prevalence of underweight inpatients with schizophrenia was higher than in the general population of the country.

Describe how this conclusion can be used to improve the care of inpatients with schizophrenia.

**(2)**

(c) Explain **two** reasons why the conclusion reached by Suzuki et al (2014) is not generalisable.

**(4)**

1

2

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

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**QUESTION 4 BEGINS ON THE NEXT PAGE.**

**4** A clinical psychology student conducted research using a closed questionnaire to investigate male and female perceptions of mental health. The student asked participants whether being diagnosed with anxiety disorder was more or less serious than being diagnosed with diabetes. The results are shown in **Table 1**.

| | **Anxiety disorder is more serious than diabetes** | **Anxiety disorder is less serious than diabetes** |
|---|---|---|
| **Males** | 11 | 34 |
| **Females** | 28 | 14 |

**Table 1**

(a) Calculate chi-squared for this data by completing **Table 2**.

Your answers should be correct to two decimal places.

**(4)**

| | | **Observed** | **Expected** | **O-E** | **$(O-E)^2$** | **$(O-E)^2/E$** |
|---|---|---|---|---|---|---|
| **Males** | **More serious** | 11 | 20.17 | | | |
| | **Less serious** | 34 | 24.83 | | | |
| **Females** | **More serious** | 28 | 18.83 | | | |
| | **Less serious** | 14 | 23.17 | | | |
| | | | | **chi-squared =** | | |

**Table 2**

**Space for calculations**

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(b) State the critical value for chi-squared, for this data, with df1 at p0.05 for a two-tailed test.

**(1)**

(c) Justify, with reference to the data, that there is a significant difference between male and female perceptions of mental health.

**(1)**

**(Total for Question 4 = 6 marks)**

**5** Some psychologists argue that culture can have an impact on the diagnosis of abnormality in clinical psychology.

(a) Explain **one** reason why cultural issues may affect the diagnosis of abnormality.

**(2)**

(b) Explain **one** reason why cultural issues may not affect the diagnosis of abnormality.

**(2)**

**(Total for Question 5 = 4 marks)**

**TOTAL FOR SECTION A = 32 MARKS**

## SECTION B

**6** In the past psychological abnormality has been viewed negatively. The therapies available for patients with mental health disorders could be cruel and invasive. Inpatients were often poorly treated, and once admitted into hospitals they stayed for lengthy periods of time. Some people believed that the patients were undeserving of care.

Care for patients with mental health disorders has now improved and often occurs within the community. Clinical psychologists may have to meet strict guidelines in their work and some will register with the Health and Care Professions Council (HCPC). Many people are now more accepting of mental health issues and psychological abnormality is often better diagnosed and treated by professionals.

Evaluate the suggestion that psychological abnormality is now better diagnosed, treated and accepted in society.

**(16)**

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**(Total for Question 6 = 16 marks)**

**TOTAL FOR SECTION B = 16 MARKS**

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**SECTION C BEGINS ON THE NEXT PAGE.**

## SECTION C

## PSYCHOLOGICAL SKILLS

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

**7** Schaffer and Emerson's (1964) study entitled 'The Glasgow Babies', aimed to discover the age at which attachments were formed and also how intense those attachments were. They conducted naturalistic observations of 60 babies in their own homes. They observed the babies every four weeks until they were 12 months old, and then revisited for a final observation when the babies were 18 months old. The mothers also kept a diary of their baby's behaviour. Schaffer and Emerson discovered that 87% of babies had formed multiple attachments by the time they were 18 months old.

(a) Justify why a naturalistic observation research method was used in this study.

**(2)**

(b) Explain **one** weakness of using self-report data based on diary entries made by the mothers.

**(2)**

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(c) The mothers were also interviewed about how their babies reacted to separation. This was to classify the behaviour of the baby in relation to separation anxiety and stranger distress.

Give **two** open questions that could be used when interviewing the mothers in this study.

**(2)**

Question 1

Question 2

(d) Tahseen is a student who is interested in attachment and relationships. She decides to use a questionnaire to investigate whether strong attachments in childhood can lead to strong relationships in adulthood. Tahseen is concerned about the ethical implications of conducting her research.

Explain **two** ways that Tahseen can make her research ethical.

**(4)**

1

2

(e) Tahseen used her questionnaire to ask 55 adults aged between 25 and 35 years old about their relationship with their parents and also their current adult attachment relationships. She analysed the results and categorised responses as a positive or negative relationship.

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

| | **Positive current adult attachment relationships** | **Negative current adult attachment relationships** |
|---|---|---|
| **Positive relationship with parents** | 16 | 6 |
| **Negative relationship with parents** | 8 | 25 |

**Table 3**

(i) Tahseen's sample included 24 females and 12 of these were classified as having negative relationships with their parents.

Calculate the number of **males** classified as having negative relationships with their parents.

**(1)**

**Space for calculations**

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(ii) **Table 4** shows the number of males and females who Tahseen classified as having positive relationships with their parents.

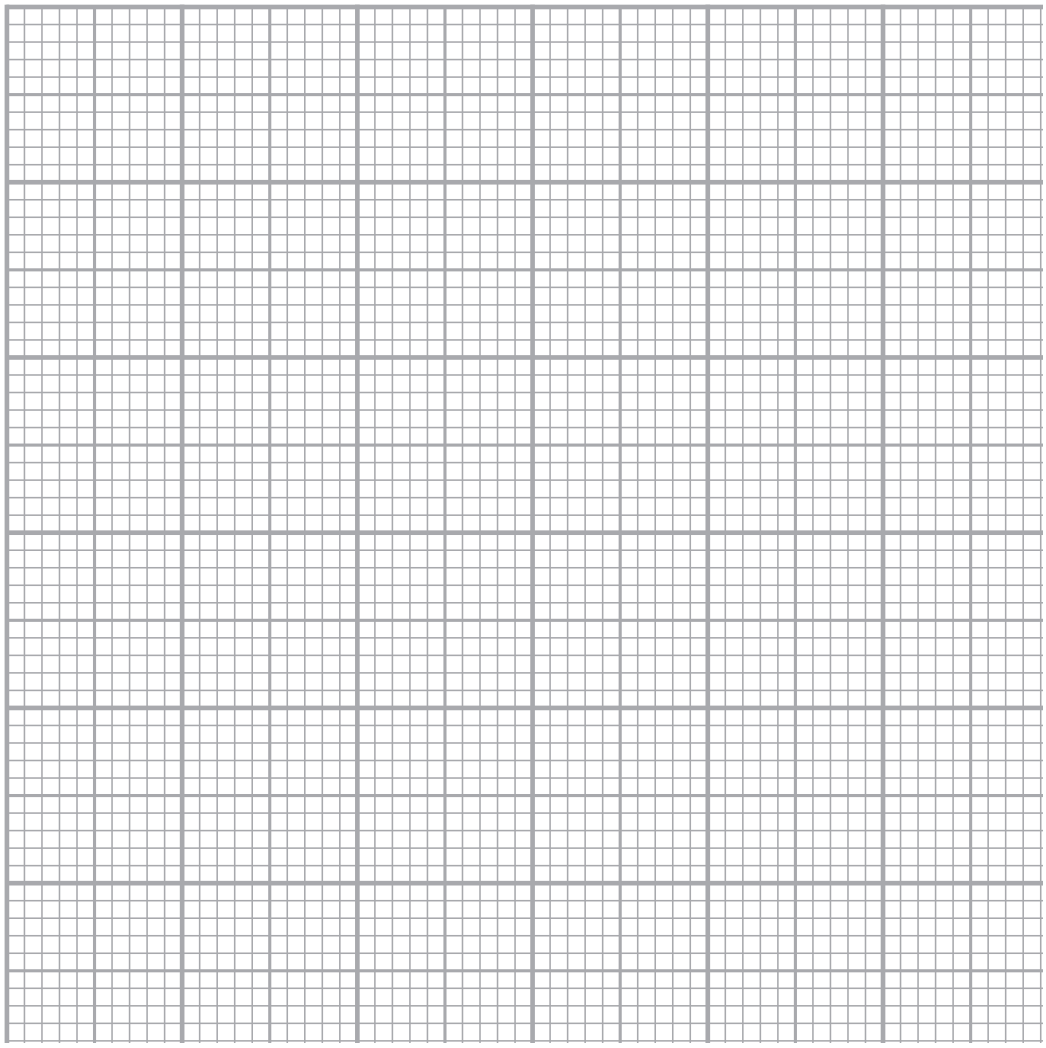
| | **Males** | **Females** |
|---|---|---|
| **Positive relationship with parents** | 10 | 12 |

**Table 4**

Draw a bar chart to illustrate the data in **Table 4**.

**(3)**

Title



**(Total for Question 7 = 14 marks)**

**8** Human memory is a topic studied by cognitive psychologists using laboratory experiments. Some cognitive psychologists claim that using laboratory experiments is more scientific than using case studies of brain damaged patients.

Justify the use of laboratory experiments to research human memory.

**(Total for Question 8 = 6 marks)**

**TOTAL FOR SECTION C = 20 MARKS**

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## SECTION D

**9** One key question for society is how individuals develop gender specific behaviours.

In 2005 research was conducted to investigate the impact of role models on students at a university. 39 male and 48 female students were given same-gender or different-gender role models in the career they were interested in. The impact on participant perceptions of themselves and identification with the role model were measured.

Female participants were more positively affected in same-gender role model conditions, and they identified more with the female role models. For the male participants, there was no significant difference in positive impact or identification in the same-gender or different-gender role model conditions.

The conclusion of the study was that a career role model of the same gender was important for female students, but this is not the case for male students.

Discuss the key question of how individuals develop gender specific behaviours. You should use concepts, theories and/or research studied in your psychology course.

You must make reference to the context in your answer.

**(8)**

**(Total for Question 9 = 8 marks)**

**TOTAL FOR SECTION D = 8 MARKS**

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## SECTION E

**10** A team of researchers tested whether there was a specific location in the brain where memory is stored. Instead of using human participants, the researchers taught rats how to find their way around a maze and then removed sections of the rats' brains. Despite removing brain tissue from almost every area of the brain, the rats were still able to complete the maze. The researchers were unable to locate a specific area of the brain that stored memories.

Criticisms of unethical practices with animals and humans have been dismissed by some researchers who claim that regardless of the actions taken during research, the outcomes are for the 'greater good' of society.

To what extent do the potential outcomes of human and animal research outweigh ethical responsibility?

You must make reference to the context in your answer.

**(20)**

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**(Total for Question 10 = 20 marks)**

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

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