| Please check the examination details below before entering your candidate information | | | | | | |
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| Friday 7 June 2 | 2019 | | | | | |
| Afternoon (Time: 2 hours) | Paper R | eference V | /PS04/01 | | | |
| Psychology | | | | | | |
| International Advanced Level Paper 4: Clinical Psychology and Psychological Skills | | | | | | |
| You do not need any other materi | als. | | 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)

$$\left(\frac{\sum (x-\bar{x})^2}{n-1}\right)$$

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 | |
|-----|-------|----------------|-------------|--------------|--------|--|
| | Le | vel of signifi | cance for a | two-tailed t | est | |
| _ 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.



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

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

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 s | ignificance | 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.

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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

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| | 0.05 | 0.025 | 0.01 |
|-----|-----------------|-------------------|-------------|
| | Level of signif | icance 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.



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 mental health disorders such as schizophrenia.
- (a) Describe the symptoms and/or features of schizophrenia.

 (3)



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| (b) You will have also learned about either unipolar depression or anorexia | nervosa. |
|---|----------------|
| Explain two strengths of one biological explanation for either unipolar or anorexia nervosa. | depression (4) |
| Chosen disorder | |
| Strength 1 | |
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| Strength 2 | |
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| (Total for Questio | n 1 = 7 marks) |
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| | osenhan (1973) in detail. | |
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| (a | State one aim of the classic study by Rosenhan (1973). | (1) |
| | | |
| (b |) Explain one strength and one weakness of the classic study by Rosenhan (1973). | (4) |
| | Strength | |
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| | Weakness | |
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| c) Explain one way Rosenhan's (1973) study could ha | ave been improved. |
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| 3 | Henima goes to Clinic A and is diagnosed with a mental health disorder. Henima is unhappy with her diagnosis so she goes to Clinic B and is not diagnosed with a mental health disorder. | |
|---|--|-------|
| | Henima is worried about the reliability and validity of the diagnosis of mental health disorders after her recent experience. | |
| | Explain whether Henima should be worried about the reliability and validity of the diagnosis of mental health disorders. | (-) |
| | | (6) |
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| 4 | journal called 'Super Psychology Research' to conduct peer reviews on unpublished | |
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| | research articles. | |
| | Sadiah has received an article about the effectiveness of family therapy for the treatment of schizophrenia. | |
| | Describe how Sadiah would carry out a peer review of the article she has received for the journal 'Super Psychology Research'. | |
| | | (4) |
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| 5 | When diagnosing mental health issues clinicians use classification systems such as the ICD or DSM. | |
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| | (a) State two features of the ICD. | (2) |
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| | (b) Compare the DSM IVR with the DSM V. | |
| | (6) 60 | (2) |
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6 Abbas used a questionnaire to investigate the attitude of young people (16 to 20 years old) towards those who have been diagnosed with a mental health issue.

Abbas used a number of ranked scale questions to determine how positive attitudes were towards those with a mental health issue.

On the ranked scale, mean scores of 1-3 indicated a negative attitude, 4 indicated a neutral attitude, and 5-7 indicated a positive attitude towards those with a mental health issue.

A tally of Abbas's results are shown in **Table 1**.

| Negative attitude | Neutral attitude | Positive attitude |
|---------------------|-------------------|---------------------|
| (mean score of 1-3) | (mean score of 4) | (mean score of 5-7) |
| ++++ | /// | ++++ ++++ |

Table 1

| Explain one conclusion that you could make | |
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| | (2) |
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| Explain one weakness of Abbas using a ques | tionnaire in his investigation. |
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| | Answer the question. Write your answer in the space provided. | | | | | |
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| 7 | Evaluate drug therapy as a treatment for schizophrenia. | | | | | |
| | Transcer and archaely as a measurement control for the same | (16) | | | | |
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SECTION C

PSYCHOLOGICAL SKILLS

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

| 8 | Arina has been asked to conduct an investigation into how the brain responds when |
|---|--|
| | a person is told a joke. Arina has decided to use positron emission tomography (PET) |
| | scanning for her investigation. |
| | |

(a) Describe how PET scanning could be used by Arina to investigate how the brain

| responds when a person is told a joke. | (4) |
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9 Skylar wanted to investigate the influence of a reward on the behaviour of rats.

Skylar set up a maze and recorded how long, in seconds, it took rats to complete the maze. The time taken to complete the maze was recorded for each rat without a reward (Condition A) and for the same rats with a reward (Condition B).

Skylar's results are shown in **Table 2**.

| Rat | Condition A | Condition B |
|---|--|---|
| | Time taken (seconds) to complete the maze without a reward | Time taken (seconds) to complete the maze with a reward |
| А | 20.14 | 10.02 |
| В | 19.89 | 15.21 |
| С | 15.14 | 9.86 |
| D | 25.21 | 19.86 |
| Е | 20.08 | 15.01 |
| Estimated total time for all rats (in seconds) to complete the maze | | |

Table 2

(a) Complete **Table 2** with the estimated total time to complete the maze for Condition A and Condition B.

(2)

Space for calculations

(b) Calculate the mean score of Condition B in **Table 2** to **four** significant figures.

(1)

Space for calculations

Mean score to four significant figures



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| (c) | Skylar decided to conduct a statistical test on her data. Explain which statistical test Skylar should use for her investigation. | (3) |
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| | (Total for Question 9 = 6 ma | arks) |
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10 Ahmed wanted to investigate the influence of violent video games on aggression.

Ahmed had two groups of different participants. Group 1 played a violent video game and Group 2 played a non-violent video game.

After playing the game, participants were asked how many aggressive thoughts they experienced. They were categorised as having less than 10 aggressive thoughts or more than 10 aggressive thoughts.

Ahmed's results are shown in Table 3.

| | Less than 10 aggressive thoughts | More than 10 aggressive thoughts | Totals |
|---------------------------|--|----------------------------------|--------|
| Group 1: | | | |
| Violent video game | ++++ // | ++++ ++++ | 20 |
| Group 2: | | | |
| Non-violent video game | ++++ ++++ | //// | 20 |

Table 3

(a) Explain one extraneous variable that Ahmed could have controlled for when

| conducting his investigation. | (2) |
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(b) Complete **Table 4** and calculate chi-squared for Ahmed's investigation.

You **must** give all your answers to **one** decimal place.

(4)

| | | Observed | Expected | O-E | (O-E) ² | (O-E) ² /E |
|---------------|--|----------|----------|-----|--------------------|-----------------------|
| Violent | Less than 10 aggressive thoughts | 7 | 11.5 | | | |
| video game | More than 10 aggressive thoughts | 13 | 8.5 | | | |
| Non-violent | Less than 10 aggressive thoughts | 16 | 11.5 | | | |
| video game | More than 10 aggressive thoughts | 4 | 8.5 | | | |
| Chi-squared = | | | | | | |

Table 4
Space for calculations

 $X^2 = \dots$

(Total for Question 10 = 6 marks)

TOTAL FOR SECTION C = 20 MARKS



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SECTION D

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

11 A key question for society is whether biological factors are responsible for drug taking. Understanding this may help with the prevention of drug taking and avoid the damage it does to individuals and the costs to society.

Newton et al. (2009) asked drug users why they continue using drugs and take drugs again after they have not taken drugs for some time. The majority of respondents cited "pleasure seeking" and "impulsivity" as their primary reasons for taking drugs.

One explanation for the reasons given by the drug users is that repeated exposure to the drug changes the way the brain works and stimulates reward pathways. The dopamine reward system is stimulated and drugs affect synaptic functioning, which can lead to the user craving more drugs.

Another explanation for drug taking could be that drug users copy significant others who might take drugs in front of them. This behaviour might be reinforced by other factors, such as friends, when taking drugs.

Discuss the key question of whether biological factors are responsible for drug taking in society. You should use concepts, theories and/or research studied in your psychology course.

You must make reference to the context in your answer.

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