| Please check the examination details below Candidate surname | Other names |
|---|---------------------------|
| Pearson Edexcel International Advanced Level | e Number Candidate Number |
| Monday 11 May | 2020 |
| Afternoon (Time: 1 hour 30 minutes) | Paper Reference WPS01/01 |
| Psychology International Advanced Sul Paper 1: Social and Cognitive | |
| 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 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 ▶





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

| | 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

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

Critical values for chi-squared distribution

| Leve | l of | i signi | ificance f | for a one-t | 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

| Leve | lot | f significance f | for a one-tailed test |
|------|-----|------------------|-----------------------|
|------|-----|------------------|-----------------------|

| | 0.05 | 0.025 | 0.01 |
|-----|------------------|-------------------|------------|
| | Level of signifi | cance for a two-t | ailed 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

SOCIAL PSYCHOLOGY

| | Answer ALL questions in this section. Write your answers in the spaces provi | ded. |
|---|--|------|
| 1 | In your studies of social psychology you will have learned about whether individual differences (personality and gender) can affect obedience. | |
| | (a) Describe whether personality can affect obedience. | (0) |
| | | (2) |
| | | |
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| | | |
| | (b) Describe whether gender can affect obedience. | (2) |
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| | (Total for Question 1 = 4 ma | rks) |
| _ | (10000101111111111111111111111111111111 | , |



| 2 | Hiromi was on the bus going to work when a uniformed police officer boarded the bus. The police officer asked all the passengers to leave and wait on the footpath. Hiromi left the bus and waited on the footpath. | |
|---|---|-----|
| | (a) Describe, using agency theory, why Hiromi left the bus and waited on the footpath. | |
| | | (4) |
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| bus and waited on the footpath. | (4) |
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| Milgram conducted research into obedience, including many variation studies. One variation study used telephonic instructions (experiment 7). | |
| | |
| Explain one improvement to Milgram's telephonic instructions study (experiment 7) that would increase validity. | |
| (a para a superior a s | (2) |
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| (Total for Question 2 = 10 i | marks) |



| 3 | In your studies of social psychology you will have learned about the following contemporary study in detail: |
|---|--|
| | • Burger (2009). |
| | Describe the sample of participants that Burger (2009) used in his study. |
| | |
| | |
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| | |
| | |
| | (Total for Question 3 = 2 marks) |
| 4 | Milla believed that recycling took too much time and effort. A friend encouraged her to attend an environmental group meeting about the benefits of recycling. After attending, Milla bought recycling bins to organise her waste. |
| | Describe, using one type of conformity, why Milla may have changed her behaviour. |
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| | (Total for Question 4 = 2 marks) |
| | |

| psychology. Guidelines, such as the British Psychological Society (BPS) code of and conduct (2009), are in place for researchers to follow. | ethics |
|---|--------|
| Assess whether research in social psychology can fully meet ethical guidelines. | (8) |
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| (Total for Question 5 = 8 marks) |
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TOTAL FOR SECTION A = 26 MARKS

SECTION B

COGNITIVE PSYCHOLOGY

Answer ALL questions in this section. Write your answers in the spaces provided. In your studies of cognitive psychology, you will have learned about the multi-store model of memory (Atkinson and Shiffrin, 1968). (a) Describe what is meant by 'information processing' in relation to the multi-store model of memory (Atkinson and Shiffrin, 1968). (2)(b) Explain **one** weakness of the multi-store model of memory (Atkinson and Shiffrin, 1968) as an explanation of memory. (2)(Total for Question 6 = 4 marks)

| 7 | Maria and Betsy attended their friend's fifth birthday party. At the party there was a |
|---|--|
| | clown who burst a balloon, which frightened Betsy. Maria had one slice of birthday |
| | cake, but Betsy had two slices of birthday cake. |

After the party, Betsy told her mother there was a man in a scary outfit, but Maria described the man as wearing a funny outfit. Betsy also said that there was a big birthday cake whereas Maria described the cake as small.

| (a) | Describe, using reconstructive memory (Bartlett, | 1932), | why Maria | and Betsy l | have |
|-----|--|--------|-----------|-------------|------|
| | different memories of the party. | | | | |

| (3) |
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| (b) | Explain one strength and one weakness of reconstructive memory (Bartlett, 1932) as an explanation of why Maria and Betsy have different memories of the party. | (4) |
|-----|--|-----|
| | Strength | |
| | | |
| | | |
| | | |
| | | |
| | Weakness | |
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| | (Total for Question 7 = 7 mar | ks) |

- **8** Caitlin conducted an investigation into the effect of interference on short-term memory recall. She had a sample of 10 participants who took part in both conditions.
 - Condition A: participants were asked to recall 12 numbers in the order they were presented immediately after being read the numbers.
 - Condition B: participants were asked to recall 12 numbers in the order they were presented after a 20 second interference task.

Caitlin recorded how many numbers each participant correctly recalled in the order they were presented. The results are shown in **Table 1**.

| | | led in the order they n a list of 12 numbers |
|-------------|-------------|---|
| Participant | Condition A | Condition B |
| Α | 12 | 8 |
| В | 12 | 10 |
| С | 11 | 12 |
| D | 10 | 8 |
| E | 12 | 7 |
| F | 12 | 8 |
| G | 8 | 8 |
| н | 11 | 6 |
| I | 12 | 9 |
| J | 10 | 6 |

Table 1



| (a) Calculate the mean score for the total numbers correctly recalled in the order they were presented in Condition A . | (1) |
|--|-----|
| Space for calculations | |
| | |
| | |
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| | |
| | |
| Mean score | |
| (b) State the mode for the total numbers correctly recalled in the order they were | |
| presented in Condition B . | (1) |
| Space for calculations | |
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| Mode | |
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(c) Complete **Table 2** and calculate the Wilcoxon Signed Ranks test for Caitlin's data.

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

(4)

| Participant | Condition A | Condition B | Difference | Rank | Rank if positive | Rank if negative |
|-------------|-------------|-------------|------------|-------|------------------|------------------|
| Α | 12 | 8 | | | | |
| В | 12 | 10 | | | | |
| С | 11 | 12 | | | | |
| D | 10 | 8 | | | | |
| E | 12 | 7 | | | | |
| F | 12 | 8 | | | | |
| G | 8 | 8 | | | | |
| н | 11 | 6 | | | | |
| ı | 12 | 9 | | | | |
| J | 10 | 6 | | | | |
| | | | | Total | | |

Table 2 Space for calculations

| T value | |
|---------|------|
| | |

(d) Determine whether Caitlin's results are significant for a one-tailed (directional) test at P≤0.05.

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

(1)

(Total for Question 8 = 7 marks)

| 9 | Evaluate the use of laboratory experiments in cognitive psychology when researching human memory. | |
|---|---|-----|
| | | (8) |
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| (Total for Question 9 = 8 marks) |
| |
| TOTAL FOR SECTION B = 26 MARKS |



SECTION C

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

- **10** In your studies of cognitive psychology you will have learned about the following contemporary study in detail:
 - Schmolck et al. (2002).

| Evaluate the contemporary study by Schmolck et al. (2002). | (12) |
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| (Total for Question 10 = 12 marks) |
| TOTAL FOR SECTION C = 12 MARKS |
| TOTAL FOR SECTION C = 12 MARKS TOTAL FOR PAPER = 64 MARKS |



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