GradeMax

Please check the examination details below before entering your candidate information

Candidate surname	Other names

Pearson Edexcel
International Advanced Level

Centre Number | Candidate Number

Monday 20 January 2020

Afternoon (Time: 1 hour 30 minutes) | Paper Reference **WPS03/01**

Psychology

International Advanced Level
Paper 3: Applications of Psychology

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 in Section A, and **ALL** questions from **EITHER** Option 1 criminological psychology **OR** Option 2 health psychology.
- 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 ▶

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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

DEVELOPMENTAL PSYCHOLOGY

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

1 In research methods for developmental psychology you will have learned about ethnographic field work.

(a) Describe ethnographic field work.

(2)

(b) Punch (2002) conducted a study in Bolivia using ethnographic field work.

Justify **one** strength of the study by Punch (2002).

(3)

(Total for Question 1 = 5 marks)

2 Markus carried out an experiment in a local childcare centre. He wanted to see if there was a difference in the number of words two-year-old children said in a sentence and the number of words four-year-old children said in a sentence.

He studied the same children when they were two years old and again when they were four years old.

(a) Describe how Markus could have used a random sampling technique to gather the sample of two-year-old children from the childcare centre.

(2)

(b) Explain **one** weakness of Markus using a random sample for his experiment.

(2)

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Markus recorded the number of words each child could say in a sentence. He carried out a Wilcoxon Signed Ranks test on his data to determine whether it was significant or not.

(c) Justify why Marcus used a Wilcoxon Signed Ranks test on his data.

(3)

(Total for Question 2 = 7 marks)

3 Arjun would like to improve the social development of the children he teaches. He decided to try new methods of teaching based on Vygotsky's theory of social development to help the children.

Explain **one** strength and **one** weakness of using Vygotsky's theory to help the children's social development.

Strength.....

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Weakness.....

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(Total for Question 3 = 4 marks)

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4 Betsy is three years old and her brother Jim is eight years old. When they were playing hide and seek Betsy hid behind the curtains and Jim could see her feet. Betsy could not understand why Jim found her.

Later, Jim broke a biscuit into two pieces and Betsy got upset because she thought that Jim had more biscuits than her.

The two children sometimes play pirates, using a rug as the sea and a box as the pirate ship. They use a doll as another pirate, but Betsy gets upset when she thinks the doll is hurt.

Discuss Piaget's stages of cognitive development as an explanation of Betsy and Jim's behaviour.

You must make reference to the context in your answer.

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(Total for Question 4 = 8 marks)

5 Assess whether research into attachment can be considered ethical.

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(Total for Question 5 = 8 marks)

TOTAL FOR SECTION A = 32 MARKS

SECTION B

Answer ALL questions from EITHER OPTION 1: CRIMINOLOGICAL PSYCHOLOGY OR OPTION 2: HEALTH PSYCHOLOGY.

Indicate which option you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new option with a cross ☒.

If you answer the questions in Option 1 put a cross in the box ☒ .

OPTION 1: CRIMINOLOGICAL PSYCHOLOGY

6 Renshu is a police officer. He is investigating a series of burglaries in the local area. There is a witness who saw a suspicious person walking up and down the street where the latest burglary took place. Renshu asks the witness to come to the police station for a standard interview.

The witness stated that the suspect was of another race and Renshu then asked the witness to identify the suspect from a series of photographs.

(a) Describe how the 'other race' effect may influence the reliability of the eye-witness's testimony when Renshu asks them to identify the suspect.

(2)

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(b) Explain **one** way a cognitive interview could have improved the information Renshu collected about the suspect.

(2)

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(Total for Question 6 = 4 marks)

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7 Giulia carried out an investigation to see if there was a relationship between the amount of stress an eye-witness experienced and the accuracy of their testimony.

Stress was measured on a self-report scale of 0 to 7, with 0 being no stress and 7 being extremely stressed. The accuracy of the eye-witness testimony was measured by the number of correct details the eye-witness could recall.

(a) State a fully operationalised directional (one-tailed) hypothesis for Giulia's investigation.

(2)

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Giulia's results are shown on **Table 1**.

Participant	Amount of stress experienced on a scale of 0 to 7	Number of correct details recalled
A	3	2
B	5	7
C	7	6
D	2	3
E	3	3
F	4	5

Table 1

(b) Calculate the range for the number of correct details recalled, using the data in **Table 1**.

(1)

Space for calculations

Range.....

Giulia wanted to see if her results were significant at $p \leqslant 0.01$.

(c) Describe what is meant by the term $p \leqslant 0.01$.

(2)

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(d) Explain **one** improvement Giulia could make to her investigation.

(2)

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(Total for Question 7 = 7 marks)

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8 Shukura works as a therapist with offenders. She has a new client, Adam, who is convicted of theft from shops.

Adam finds it hard to admit that he has done anything wrong, he thinks stealing from shops does not cause any harm.

He has struggled to get a job that pays enough money to feed his family, and believes this is not his fault. Adam says he needs to steal to have money for his hobbies.

Shukura decides to use cognitive behavioural therapy (CBT) with Adam.

(a) Give **one** strength of Shukura using cognitive behavioural therapy (CBT) with Adam.

(1)

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(b) Explain **two** weaknesses of Shukura using cognitive behavioural therapy (CBT) with Adam.

(4)

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(Total for Question 8 = 5 marks)

9 Evaluate social learning from the media as an explanation for crime and anti-social behaviour.

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(Total for Question 9 = 8 marks)

10 Assess the effect of weapon focus on the reliability of eye-witness testimony.

(8)

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(Total for Question 10 = 8 marks)

TOTAL FOR SECTION B OPTION 1 = 32 MARKS

SECTION B

If you answer the questions in Option 2 put a cross in the box ☒ .

OPTION 2: HEALTH PSYCHOLOGY

11 Renshu suffers from stress. At work he feels that others are leaving all the work to him, and he cannot cope with the amount of work he has to do. He checks his emails constantly when he is at home, and feels that he has to reply to them at once.

Renshu thinks that his wife is not supportive of him when he works long hours. He also feels stressed because he believes he does not spend enough time with his children.

(a) Describe how Renshu can use appraisal focusing to help him cope with his stress.

(2)

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(b) Explain **one** way that problem focusing could improve Renshu's ability to cope with his stress.

(2)

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(Total for Question 11 = 4 marks)

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12 Giulia carried out an investigation to see if there was a relationship between the amount of stress participants felt and the number of daily stressful events they experienced.

Stress was measured on a self-report scale of 0 to 7, with 0 being no stress and 7 being extremely stressed. The number of stressful events was recorded every day. A weekly average for both was then calculated.

(a) State a fully operationalised directional (one-tailed) hypothesis for Giulia's investigation.

(2)

Giulia's results are shown on **Table 2**.

Participant	Amount of stress experienced on a scale of 0 to 7	Number of stressful events per day
A	3	2
B	5	7
C	7	6
D	2	3
E	3	3
F	4	5

Table 2

(b) Calculate the range for the number of stressful events per day, using the data in **Table 2**.

(1)

Space for calculations

Range.....

Giulia wanted to see if her results were significant at $p \leqslant 0.01$.

(c) Describe what is meant by the term $p \leqslant 0.01$.

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(d) Explain **one** improvement Giulia could make to her investigation.

(2)

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(Total for Question 12 = 7 marks)

13 Shukura is a doctor who works with people who have stress and anxiety. She has a new client, Adam, who has been feeling unwell due to anxiety.

Adam has started a new job that puts more pressure on him than his previous job. He has moved to a new area, and feels isolated as he finds it hard to make new friends. Shukura thinks Adam is unwell because of the anxiety that he is experiencing.

Shukura decides to give Adam selective serotonin reuptake inhibitors (SSRIs) to help with his anxiety.

(a) Give **one** strength of Shukura giving Adam selective serotonin reuptake inhibitors (SSRIs) for his anxiety.

(1)

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(b) Explain **two** weaknesses of Shukura giving Adam selective serotonin reuptake inhibitors (SSRIs) for his anxiety.

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(Total for Question 13 = 5 marks)

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14 Evaluate the Holmes and Rahe stress scale as a way to measure stress.

(8)

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(Total for Question 14 = 8 marks)

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15 Assess whether cognitive behavioural therapy (CBT) could be considered a more effective treatment for anxiety disorders than other therapies.

(8)

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(Total for Question 15 = 8 marks)

TOTAL FOR SECTION B OPTION 2 = 32 MARKS
TOTAL FOR PAPER = 64 MARKS

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