Write your name here

Surname	Other names

Pearson Edexcel Level 3 GCE

Centre Number	Candidate Number

Psychology

Advanced

Paper 2: Applications of Psychology

Friday 8 June 2018 – Morning **Time: 2 hours**	Paper Reference **9PS0/02**

You do not need any other materials.	Total Marks

Instructions

- Use **black i**nk 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**. Answer ALL questions from **one** of the three options in Section **B**.
- Answer the questions in the spaces provided – *there may be more space than you need.*

Information

- The total mark for this paper is 90.
- 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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1/1/1/1/1/1/1/1/1/1/1/1

P 5 2 2 0 5 A 0 1 5 6

Pearson

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.

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.

Mann-Whitney U test formulae

$$U_a = n_a n_b + \frac{n_a(n_a+1)}{2} - \sum R_a$$

$$U_b = n_a n_b + \frac{n_b(n_b+1)}{2} - \sum R_b$$

(U is the smaller of U_a and U_b)

Critical values for the Mann-Whitney U test

	N_b															
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
N_a																
p ≤ 0.05 (one-tailed), p ≤ 0.10 (two-tailed)																
5	4	5	6	8	9	11	12	13	15	16	18	19	20	22	23	25
6	5	7	8	10	12	14	16	17	19	21	23	25	26	28	30	32
7	6	8	11	13	15	17	19	21	24	26	28	30	33	35	37	39
8	8	10	13	15	18	20	23	26	28	31	33	36	39	41	44	47
9	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54
10	11	14	17	20	24	27	31	34	37	41	44	48	51	55	58	62
11	12	16	19	23	27	31	34	38	42	46	50	54	57	61	65	69
12	13	17	21	26	30	34	38	42	47	51	55	60	64	68	72	77
13	15	19	24	28	33	37	42	47	51	56	61	65	70	75	80	84
14	16	21	26	31	36	41	46	51	56	61	66	71	77	82	87	92
15	18	23	28	33	39	44	50	55	61	66	72	77	83	88	94	100
16	19	25	30	36	42	48	54	60	65	71	77	83	89	95	101	107
17	20	26	33	39	45	51	57	64	70	77	83	89	96	102	109	115
18	22	28	35	41	48	55	61	68	75	82	88	95	102	109	116	123
19	23	30	37	44	51	58	65	72	80	87	94	101	109	116	123	130
20	25	32	39	47	54	62	69	77	84	92	100	107	115	123	130	138

N_a	N_b 5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
p ≤ 0.01 (one-tailed), p ≤ 0.02 (two-tailed)																
5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
6	2	3	4	6	7	8	9	11	12	13	15	16	18	19	20	22
7	3	4	6	7	9	11	12	14	16	17	19	21	23	24	26	28
8	4	6	7	9	11	13	15	17	20	22	24	26	28	30	32	34
9	5	7	9	11	14	16	18	21	23	26	28	31	33	36	38	40
10	6	8	11	13	16	19	22	24	27	30	33	36	38	41	44	47
11	7	9	12	15	18	22	25	28	31	34	37	41	44	47	50	53
12	8	11	14	17	21	24	28	31	35	38	42	46	49	53	56	60
13	9	12	16	20	23	27	31	35	39	43	47	51	55	59	63	67
14	10	13	17	22	26	30	34	38	43	47	51	56	60	65	69	73
15	11	15	19	24	28	33	37	42	47	51	56	61	66	70	75	80
16	12	16	21	26	31	36	41	46	51	56	61	66	71	76	82	87
17	13	18	23	28	33	38	44	49	55	60	66	71	77	82	88	93
18	14	19	24	30	36	41	47	53	59	65	70	76	82	88	94	100
19	15	20	26	32	38	44	50	56	63	69	75	82	88	94	101	107
20	16	22	28	34	40	47	53	60	67	73	80	87	93	100	107	114

N_a	N_b 5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
p ≤ 0.025 (one-tailed), p ≤ 0.05 (two-tailed)																
5	2	3	5	6	7	8	9	11	12	13	14	15	17	18	19	20
6	3	5	6	8	10	11	13	14	16	17	19	21	22	24	25	27
7	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34
8	6	8	10	13	15	17	19	22	24	26	29	31	34	36	38	41
9	7	10	12	15	17	20	23	26	28	31	34	37	39	42	45	48
10	8	11	14	17	20	23	26	29	33	36	39	42	45	48	52	55
11	9	13	16	19	23	26	30	33	37	40	44	47	51	55	58	62
12	11	14	18	22	26	29	33	37	41	45	49	53	57	61	65	69
13	12	16	20	24	28	33	37	41	45	50	54	59	63	67	72	76
14	13	17	22	26	31	36	40	45	50	55	59	64	67	74	78	83
15	14	19	24	29	34	39	44	49	54	59	64	70	75	80	85	90
16	15	21	26	31	37	42	47	53	59	64	70	75	81	86	92	98
17	17	22	28	34	39	45	51	57	63	67	75	81	87	93	99	105
18	18	24	30	36	42	48	55	61	67	74	80	86	93	99	106	112
19	19	25	32	38	45	52	58	65	72	78	85	92	99	106	113	119
20	20	27	34	41	48	55	62	69	76	83	90	98	105	112	119	127

N_a	N_b 5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
p ≤ 0.005 (one-tailed), p ≤ 0.01 (two-tailed)																
5	0	1	1	2	3	4	5	6	7	7	8	9	10	11	12	13
6	1	2	3	4	5	6	7	9	10	11	12	13	15	16	17	18
7	1	3	4	6	7	9	10	12	13	15	16	18	19	21	22	24
8	2	4	6	7	9	11	13	15	17	18	20	22	24	26	28	30
9	3	5	7	9	11	13	16	18	20	22	24	27	29	31	33	36
10	4	6	9	11	13	16	18	21	24	26	29	31	34	37	39	42
11	5	7	10	13	16	18	21	24	27	30	33	36	39	42	45	48
12	6	9	12	15	18	21	24	27	31	34	37	41	44	47	51	54
13	7	10	13	17	20	24	27	31	34	38	42	45	49	53	56	60
14	7	11	15	18	22	26	30	34	38	42	46	50	54	58	63	67
15	8	12	16	20	24	29	33	37	42	46	51	55	60	64	69	73
16	9	13	18	22	27	31	36	41	45	50	55	60	65	70	74	79
17	10	15	19	24	29	34	39	44	49	54	60	65	70	75	81	86
18	11	16	21	26	31	37	42	47	53	58	64	70	75	81	87	92
19	12	17	22	28	33	39	45	51	56	63	69	74	81	87	93	99
20	13	18	24	30	36	42	48	54	60	67	73	79	86	92	99	105

The calculated value must be equal to or less than 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.

SECTION A: CLINICAL PSYCHOLOGY

Answer ALL questions.

1 Mundra is a clinical psychologist. She has to abide by the Health and Care Professionals Council (HCPC) guidelines when she works with patients.

(a) State **one** guideline from the Health and Care Professionals Council (HCPC).

(1)

(b) Describe how Mundra would use **one** guideline from the HCPC in her practice.

(3)

(Total for Question 1 = 4 marks)

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QUESTION 2 BEGINS ON THE NEXT PAGE.

2 Archie carried out an interview looking at people's attitudes to those with a mental health issue. He compared the attitudes of people who knew someone with a mental health issue with the attitudes of people who did not know someone with a mental health issue.

Archie used a Likert scale to gather his data, where 1 showed a positive attitude and 7 showed a negative attitude.

Archie's median scores are shown in **Table 1** below.

	People who knew someone with a mental health issue	**People who did not know someone with a mental health issue**
Median score on attitudes to those with a mental health issue	2	5

Table 1

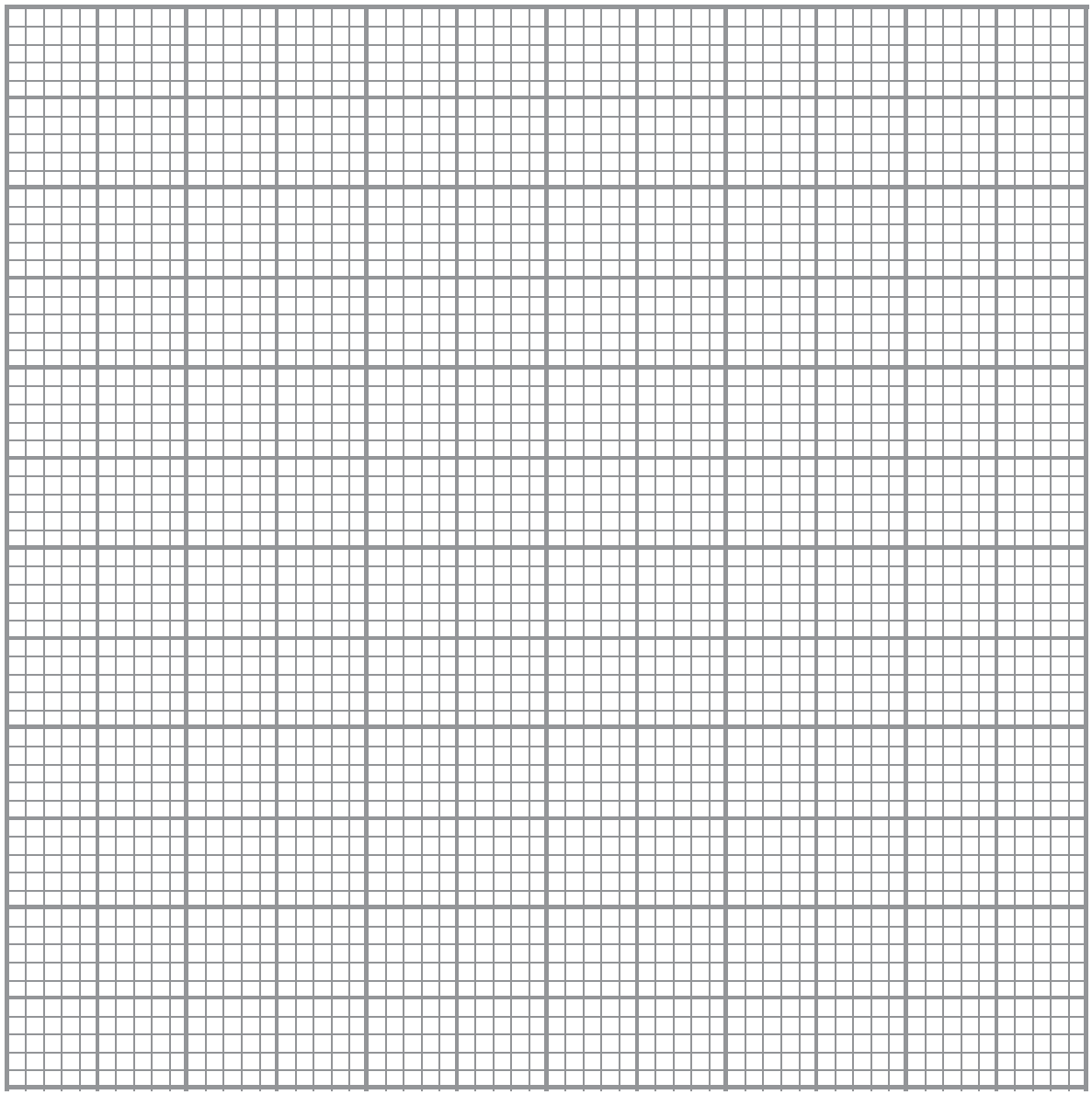
(a) Analyse what Archie's results show about people's attitudes to those with a mental health issue.

(2)

(b) Draw a bar chart to show the median results of Archie's study using the data from **Table 1.**

(3)

Title



(Total for Question 2 = 5 marks)

3 Erik has been asked to carry out a cross-sectional study of patients' behaviour on a psychiatric ward.

(a) Describe how Erik may obtain his sample for his cross-sectional study.

(2)

(b) Erik has been asked to collect primary data as part of his cross-sectional study.

Describe how Erik could collect primary data regarding the patients' behaviour.

(3)

(c) Explain **one** strength and **one** weakness of a cross-sectional study.

(4)

Strength

Weakness

(Total for Question 3 = 9 marks)

4 Evaluate **one** treatment for schizophrenia that you have studied.

(8)

(Total for Question 4 = 8 marks)

5 During your course you will have studied Rosenhan's (1973) study.

Evaluate Rosenhan's (1973) study.

(8)

(Total for Question 5 = 8 marks)

6 You will have studied one of the following disorders:

- anorexia nervosa
- Obsessive-compulsive disorder
- unipolar depression.

Assess **one** biological explanation for your chosen disorder.

(20)

Name of disorder .....

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(Total for Question 6 = 20 marks)

TOTAL FOR SECTION A = 54 MARKS

SECTION B

Answer questions from ONE option in this section.

Indicate which question 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 question with a cross ☒.

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

OPTION 1: CRIMINOLOGICAL PSYCHOLOGY

Answer ALL questions.

7 Jason carried out an experiment on the effects of leading questions on the accuracy of eyewitnesses' recall. All participants had 15 questions in their interview.

He interviewed one group of participants who had five leading questions in the interview (Condition 1). The other group of participants had no leading questions in their interview (Condition 2).

Jason's results are in **Table 2**.

Condition 1 **Number of incorrect answers in the group with leading questions**	**Condition 2** **Number of incorrect answers in the group with no leading questions**
5	0
4	1
4	1
3	2
2	4
5	3
1	0
2	0
3	1
4	1
4	2
2	1
Total = 39	**Total = 16**
Mean =	**Mean =**

Table 2

(a) Calculate the mean score for Condition 1 and the mean score for Condition 2 and complete **Table 2** with your answers to **two** decimal places.

(2)

SPACE FOR CALCULATIONS

(b) Describe how Jason could use the findings of his study to improve eyewitness testimony.

(2)

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(Total for Question 7 = 4 marks)

8 Helen works in Egton prison with offenders who have committed burglary. She is considering using a cognitive-behavioural treatment for the offenders.

(a) Describe how **one** cognitive-behavioural treatment could be used by Helen for the offenders at the prison.

(4)

(b) Explain **one** strength and **one** weakness of **one** cognitive-behavioural treatment for offenders.

(4)

Strength

Weakness

(Total for Question 8 = 8 marks)

9 Rachel lives in an area that has a high incidence of criminal activity. Her older brother has frequently been in trouble with the police for anti-social behaviour and shoplifting. Rachel has recently spent the night at a police station for being drunk and disorderly.

Discuss self-fulfilling prophecy as an explanation of Rachel's anti-social behaviour. You must make reference to the context in your answer.

(8)

(Total for Question 9 = 8 marks)

10 Kylie witnessed a crime and had to go to the police station for an interview. The crime involved a robbery of a shop in a busy shopping centre. Kylie was walking past the shop with her friends when she heard the shopkeeper shouting for help, as the thief ran out of the shop. The police carried out a cognitive interview to gather as much information as possible from Kylie about what she witnessed.

To what extent would the cognitive interview be effective in gathering accurate information from Kylie about the crime she witnessed? You must make reference to the context in your answer.

(16)

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DO NOT WRITE IN THIS AREA

(Total for Question 10 = 16 marks)

TOTAL FOR SECTION B: OPTION 1 = 36 MARKS

OPTION 2: CHILD PSYCHOLOGY

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

Answer ALL questions.

11 Jason carried out an experiment on the type of toys children played with. He studied a group of boys and recorded how many times they played with cars (Condition 1) and how many times they played with dolls (Condition 2).

Jason's results are in **Table 3**.

Condition 1 **Number of times the boys played with cars**	**Condition 2** **Number of times the boys played with dolls**
5	0
4	1
4	1
3	2
2	4
5	3
1	0
2	0
3	1
4	1
4	2
2	1
Total = 39	**Total = 16**
Mean =	**Mean =**

Table 3

(a) Calculate the mean score for Condition 1 and the mean score for Condition 2 and complete **Table 3** with your answers to **two** decimal places.

(2)

SPACE FOR CALCULATIONS

(b) Jason observed that most of the boys were happy to leave their mothers and explore the room as long as they could still see their mother. However, if the mothers left the room then the boys would get upset.

Describe the type of attachment the boys demonstrated in Jason's observation.

(2)

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(Total for Question 11 = 4 marks)

12 Helen works with children with autism. This includes offering therapies that will help them.

(a) Describe how **one** therapy could be used by Helen to help children with autism.

(4)

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DO NOT WRITE IN THIS AREA

(b) Explain **one** strength and **one** weakness of **one** therapy that is used to help children with autism.

(4)

Strength

Weakness

(Total for Question 12 = 8 marks)

13 Rachel is a social worker who has worked with James for over 20 years. She has noticed that the attachment James had with his mother when he was young has affected his relationships with his partners and his children.

Discuss Bowlby's theory of the internal working model as an explanation of James's behaviour. You must make reference to the context in your answer.

(8)

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DO NOT WRITE IN THIS AREA

(Total for Question 13 = 8 marks)

14 Hattie conducted cross-cultural research into attachment types. She gathered data from two different cultures, one culture was in Europe and one culture was in Asia, and concluded that attachment types are due to nurture. Hattie came to this conclusion as she found that there was a difference in the number of children who were securely attached in the two different cultures.

To what extent is Hattie correct in her conclusion that attachment type is due to nurture? You must make reference to the context in your answer.

(16)

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(Total for Question 14 = 16 marks)

TOTAL FOR SECTION B: OPTION 2 = 36 MARKS

OPTION 3: HEALTH PSYCHOLOGY

If you answer the questions in Option 3 put a cross in the box ☒ .

Answer ALL questions.

15 Jason carried out a study on attitudes towards drugs, comparing the attitudes of teenagers (Condition 1) and the attitudes of those aged over 50 (Condition 2).

Jason used a ranked scale to gather his data, where 0 showed a negative attitude towards drugs and 5 showed a positive attitude towards drugs.

Jason's results are in **Table 4**.

Condition 1 **Attitudes of teenagers towards drugs**	**Condition 2** **Attitudes of the over 50s towards drugs**
5	0
4	1
4	1
3	2
2	4
5	3
1	0
2	0
3	1
4	1
4	2
2	1
Total = 39	**Total = 16**
Mean =	**Mean =**

Table 4

(a) Calculate the mean score for Condition 1 and the mean score for Condition 2 and complete **Table 4** with your answers to **two** decimal places.

(2)

SPACE FOR CALCULATIONS

(b) Describe how Jason could use the findings of his study to support a learning explanation of drug addiction.

(2)

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(Total for Question 15 = 4 marks)

DO NOT WRITE IN THIS AREA DO NOT WRITE IN THIS AREA DO NOT WRITE IN THIS AREA

16 Helen works with people addicted to alcohol. This includes offering treatments for their addiction to alcohol.

(a) Describe how **one** treatment could be used by Helen with people addicted to alcohol.

(4)

(b) Explain **one** strength and **one** weakness of **one** treatment that is used with people addicted to alcohol.

(4)

Strength

Weakness

(Total for Question 16 = 8 marks)

17 Rachel suffers from alcohol addiction. She started drinking alcohol at a young age, and now drinks excessive amounts of alcohol every day. If Rachel cannot drink alcohol at the start of the day, then she feels too unwell to go into work. Rachel's parents were both treated for alcohol addiction.

Discuss **one** biological explanation for Rachel's alcohol addiction. You must make reference to the context in your answer.

(8)

(Total for Question 17 = 8 marks)

18 Ian carries out animal laboratory experiments to study drugs. He gave drugs to 35 monkeys and kept the monkeys in isolation during the experiment. After the experiment, Ian reintroduced the monkeys to their social group, but they were rejected by the other monkeys.

To what extent are animal laboratory experiments appropriate to study drugs? You must make reference to the context in your answer.

(16)

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(Total for Question 18 = 16 marks)

TOTAL FOR SECTION B: OPTION 3 = 36 MARKS
TOTAL FOR PAPER = 90 MARKS

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