GradeMax

Write your name here

Surname	Other names

Pearson Edexcel
International Advanced Level

Centre Number | | | | | |

Candidate Number | | | | |

Psychology

International Advanced Level
Paper 3: Applications of Psychology

Thursday 26 October 2017 – Afternoon
Time: 1 hour 30 minutes

Paper Reference
WPS03/01

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 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 in this section. Write your answers in the spaces provided.

1 Kareem is 17 months old, and is currently being looked after by his grandmother while his mother is in hospital. Kareem's grandmother meets his needs. After 10 days he is reunited with his mother and shows very few signs of anxiety.

(a) Describe Bowlby's maternal deprivation hypothesis in relation to Kareem.

(2)

(b) Mateus is 17 months old, and is an orphan showing signs of privation.

Describe why Mateus is showing signs of privation.

(2)

(Total for Question 1 = 4 marks)

2 Samad and Amna investigated attachment in infants aged one to two years old using Ainsworth's strange situation procedure. The sample comprised of 20 families where both parents were in full-time employment.

Table 1 shows results for the observed reunion behaviour.

	Reunion behaviour		
	Infant shows positive and happy responses when caregiver returns	**Infant approaches caregiver, but resists contact, may even push them away**	**Infant shows little interest when caregiver returns**
% of infants	70	15	15

Table 1

(a) Give **one** conclusion that could be made from this investigation.

(1)

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(b) Ainsworth suggested the 'caregiver sensitivity' hypothesis as an explanation for different attachment types.

Define what is meant by 'caregiver sensitivity'.

(1)

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(c) Describe the research methodology used by Samad and Amna in their investigation.

(2)

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(d) The strange situation procedure has been used cross-culturally.

Explain **one** reason why cross-cultural research is carried out when studying children.

(2)

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(Total for Question 2 = 6 marks)

3 Claudio and Sasha studied the education and employment patterns of 31 boys in their local community using a closed questionnaire. Their results can be seen in **Table 2**.

	Education and employment patterns of 13 to 19-year-old boys			
	Remained in education	**Worked for own family**	**Worked for an employer**	**Worked away from home**
Number of boys	2	7	6	16

Table 2

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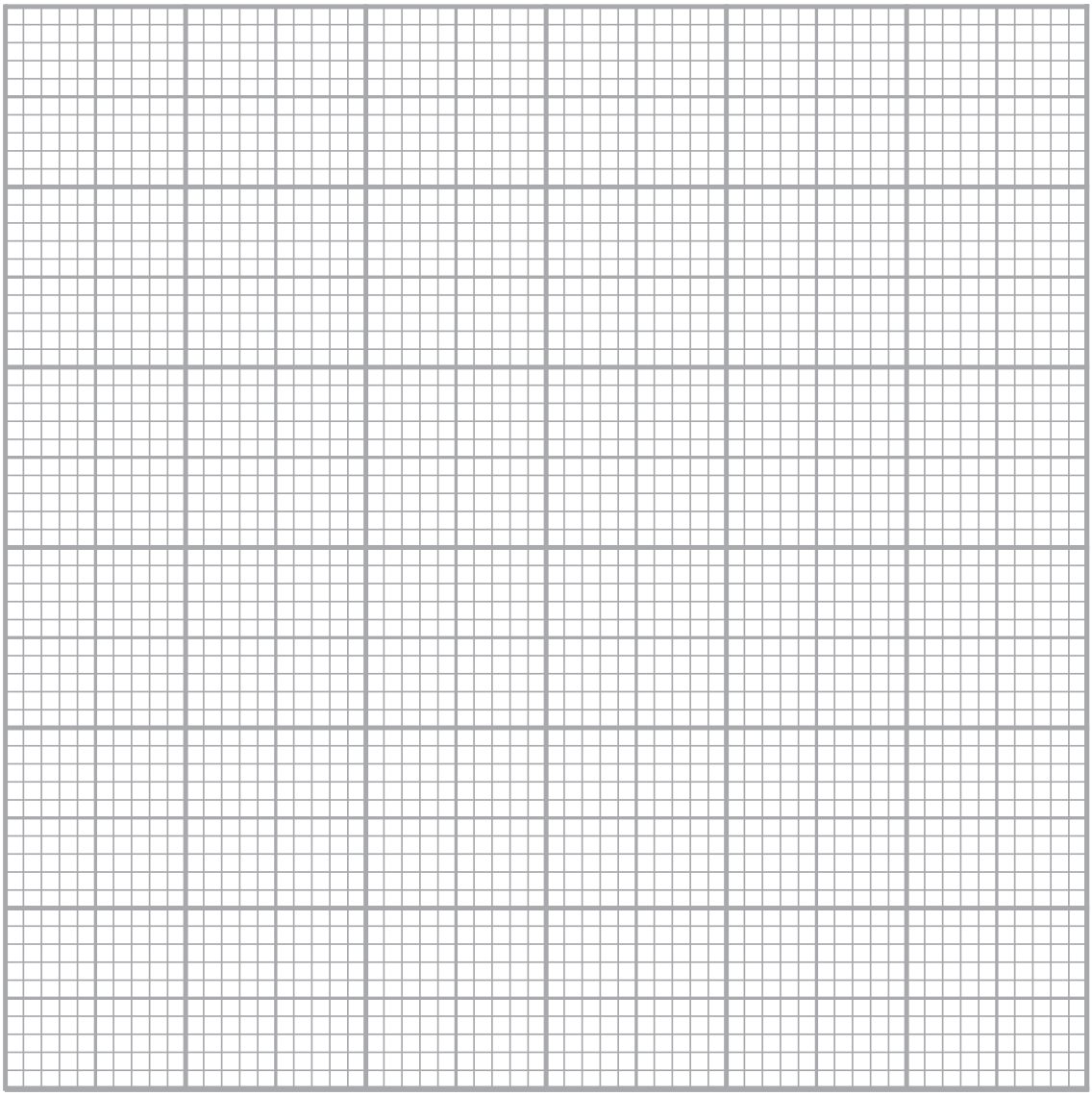
(a) Draw a bar chart to illustrate the data given in **Table 2**.

(3)

Title



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(b) Give **one** strength of Claudio and Sasha's study.

(1)

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(c) Explain **one** improvement that Claudio and Sasha could make to their study.

(2)

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(Total for Question 3 = 6 marks)

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4 Evaluate Piaget's stages of cognitive and language development.

(8)

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(Total for Question 4 = 8 marks)

5 Assess whether Cassibba et al.'s (2013) research is a scientific study of development.

(8)

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(Total for Question 5 = 8 marks)

TOTAL FOR SECTION A = 32 MARKS

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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 Ben is often in trouble at school and has become involved with a group of young people who have been committing crimes. His teachers are not surprised by his criminal and anti-social behaviour.

Describe, using your understanding of self-fulfilling prophecy, Ben's criminal and anti-social behaviour.

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(Total for Question 6 = 2 marks)

7 Donal investigated the effects of stress and trauma on eyewitness memory. Participants viewed video clips of staged crimes. Group A viewed non-stressful, non-traumatic crimes and Group B viewed stressful, traumatic crimes. Participants were then asked to identify the offender in the video clips from three photographs.

(a) Explain **one** positive effect and **one** negative effect of stress and trauma that Donal may expect to find in his investigation.

(4)

Positive

Negative

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(b) Describe **two** reasons why it might be preferable to use qualitative rather than quantitative data in Donal's investigation.

(4)

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(Total for Question 7 = 8 marks)

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8 Padraic and Coleen carried out research comparing interview techniques following a crime. 62 volunteer participants watched a video clip of a crime and 48 hours later were interviewed using either a cognitive interview or a standard interview.

The results of the research are shown in **Table 3**.

Items recalled	Mean number of items recalled in cognitive interview	Mean number of items recalled in standard interview
Correct items	43.46	29.56
Incorrect items	9.30	4.10
Confabulated items	0.70	0.65

Table 3

(a) Padraic concludes that cognitive interviews are successful.

Justify Padriac's conclusion with reference to the data in **Table 3**.

(2)

(b) Coleen disagrees, stating that cognitive interviews are not successful.

Justify Coleen's statement with reference to the data in **Table 3**.

(2)

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(c) When conducting the cognitive and standard interviews, Padraic and Coleen followed the British Psychological Society (BPS) Code of Ethics and Conduct (2009).

Describe **one** ethical issue that should be considered when conducting interviews.

(2)

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(Total for Question 8 = 6 marks)

9 In criminological psychology you will have studied one of the following contemporary studies in detail.

- Ruva, McEvoy and Bryant (2007) Effects of pre-trial publicity and jury deliberation on jury bias and source memory errors.
- Valentine and Mesout (2009) Eyewitness identification under stress in the London Dungeon.

Evaluate your chosen contemporary study.

(8)

Contemporary study .....

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(Total for Question 9 = 8 marks)

10 Assess whether mock jury research is an effective method of studying jury decision making.

(8)

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(Total for Question 10 = 8 marks)

TOTAL FOR SECTION B OPTION 1 = 32 MARKS

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SECTION B

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

OPTION 2: HEALTH PSYCHOLOGY

11 Michael was a passenger in a car that had to brake suddenly to avoid hitting a person in the road. He found the incident stressful.

Describe **one** physiological response that Michael may have experienced within the first 30 seconds after the incident.

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(Total for Question 11 = 2 marks)

12 Alain investigated whether there was a link between stress levels and the social support systems of married adults and also unmarried adults. Participants completed a closed questionnaire about their social support systems and their stress levels.

(a) Explain **one** positive effect and **one** negative effect of social support systems that Alain may expect to find in his investigation.

(4)

Positive

Negative

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(b) Describe **two** reasons why it might be preferable to use qualitative rather than quantitative data in Alain's investigation.

(4)

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(Total for Question 12 = 8 marks)

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13 Agnetha and Jon researched the link between coping strategies and anxiety.
Group A participants were given appraisal focusing strategies to use.
Group B participants were given problem focusing strategies to use.

Participants self-rated their anxiety levels using a score out of ten, with ten being high anxiety. Scores were recorded in relation to three scenarios that were given to participants before and after trialling the coping strategy.

The results of the research are shown in **Table 4**.

Scenario	Mean decrease in anxiety levels in Group A (appraisal focusing)	Mean decrease in anxiety levels in Group B (problem focusing)
Crowded room	6.31	7.97
Late for work	6.20	6.46
Lost their keys	4.12	5.84

Table 4

(a) Agnetha concludes that appraisal focusing strategies are effective.

Justify Agnetha's statement with reference to the data in **Table 4**.

(2)

(b) Jon disagrees, stating that appraisal focusing is not effective.

Justify Jon's statement with reference to the data in **Table 4**.

(2)

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(c) When administering their anxiety questionnaires, Agnetha and Jon followed the British Psychological Society (BPS) Code of Ethics and Conduct (2009).

Describe **one** ethical issue that should be considered when conducting questionnaires.

(2)

(Total for Question 13 = 6 marks)

14 In health psychology you will have studied one of the following contemporary studies in detail.

- Avdagic et al. (2014) A randomised controlled trial of acceptance and commitment therapy (ACT) and cognitive-behavioural therapy (CBT) for generalised anxiety disorder.
- Russell et al. (2015) Adaptation of an adolescence coping assessment for therapeutic recreation and outdoor adventure settings.

Evaluate your chosen contemporary study.

(8)

Contemporary study .....

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(Total for Question 14 = 8 marks)

15 Assess whether Type A personality can be considered a negative factor affecting stress.

(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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