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 May 2019

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 ▶

P56151A

©2019 Pearson Education Ltd.

1/1/1/1/1/1/1/1

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**
4	1.000	1.000	1.000	1.000	1.000
5	0.700	0.900	0.900	1.000	1.000
6	0.657	0.771	0.829	0.943	0.943
7	0.571	0.679	0.786	0.857	0.893
8	0.548	0.643	0.738	0.810	0.857
9	0.483	0.600	0.683	0.767	0.817
10	0.442	0.564	0.649	0.733	0.782
11	0.418	0.527	0.609	0.700	0.755
12	0.399	0.504	0.587	0.671	0.727
13	0.379	0.478	0.560	0.648	0.698
14	0.367	0.459	0.539	0.622	0.675
15	0.350	0.443	0.518	0.600	0.654
16	0.338	0.427	0.503	0.582	0.632
17	0.327	0.412	0.482	0.558	0.606
18	0.317	0.400	0.468	0.543	0.590
19	0.308	0.389	0.456	0.529	0.575
20	0.299	0.378	0.444	0.516	0.561
21	0.291	0.369	0.433	0.503	0.549
22	0.284	0.360	0.423	0.492	0.537
23	0.277	0.352	0.413	0.482	0.526
24	0.271	0.344	0.404	0.472	0.515
25	0.265	0.337	0.396	0.462	0.505
26	0.260	0.330	0.388	0.453	0.496
27	0.255	0.323	0.381	0.445	0.487
28	0.250	0.317	0.374	0.437	0.479
29	0.245	0.312	0.367	0.430	0.471
30	0.241	0.306	0.361	0.423	0.463

The calculated value must be equal to or exceed the critical value in this table for significance to be shown.

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

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

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.

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

GradeMax

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

SECTION A

DEVELOPMENTAL PSYCHOLOGY

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

1 In developmental psychology you will have learned about the following contemporary study in detail:

- Cassibba et al. (2013).

(a) Explain **two** strengths of Cassibba et al. (2013).

(4)

1 .....

.....

.....

.....

.....

.....

2 .....

.....

.....

.....

.....

.....

(b) Explain **one** improvement that could be made to the study by Cassibba et al. (2013).

(2)

(Total for Question 1 = 6 marks)

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

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

2 Nina investigated the influence of mindfulness on emotional development. She wanted to see the impact of a school-based mindfulness programme on levels of empathy in children.

Participants took part in a mindfulness programme for 10 weeks. At the end of the programme they were assessed on their levels of empathy.

The same participants then took part in a non-mindfulness social responsibility programme for a further 10 weeks. They were then assessed on their levels of empathy.

Empathy was measured on a scale of 0-28, where 28 was extremely high empathy.

The data gathered by Nina is shown **in Table 1**.

Participant	Empathy score after mindfulness programme	Empathy score after non-mindfulness social responsibility programme
A	25	24
B	20	22
C	22	12
D	19	16
E	27	20
F	10	10
G	19	11
H	24	19
I	16	5
J	18	14

Table 1

(a) Complete **Table 2** and calculate the Wilcoxon Signed Ranks test for Nina's data.

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

(4)

Participant	Empathy score after mindfulness programme	Empathy score after non-mindfulness social responsibility programme	Difference	Ranked Difference
A	25	24		
B	20	22		
C	22	12		
D	19	16		
E	27	20		
F	10	10		
G	19	11		
H	24	19		
I	16	5		
J	18	14		

Table 2

Space for calculations

T value .....

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

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

(b) Nina collected data from 1000 participants who had experienced the school-based mindfulness programme. She presented the data in a histogram to illustrate the distribution of empathy scores after 10 weeks of the mindfulness programme.

Nina's histogram is shown in **Figure 1**.

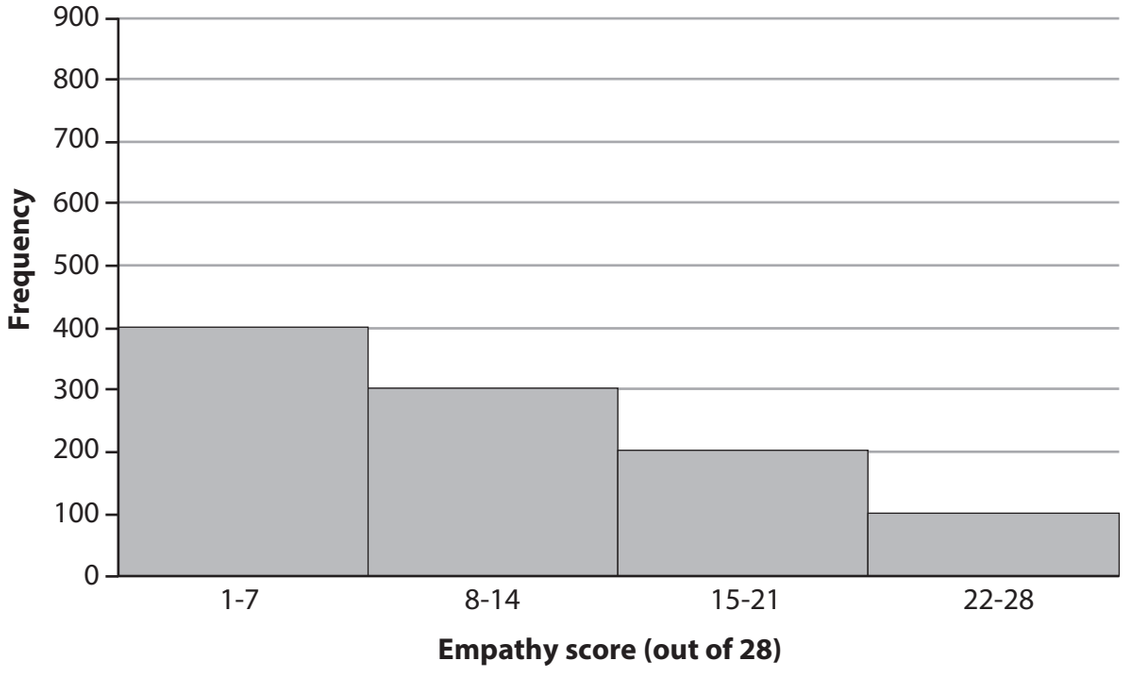

Figure 1

Interpret the data shown in the histogram in **Figure 1**.

(1)

.....

.....

.....

.....

(Total for Question 2 = 5 marks)

3 Precious wanted to investigate the universality of attachment types cross-culturally. She decided to use a meta-analysis.

(a) Describe how Precious would carry out a meta-analysis into the universality of attachment types.

(3)

(b) Explain **one** weakness of Precious using a meta-analysis to investigate the universality of attachment types cross-culturally.

(2)

(Total for Question 3 = 5 marks)

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

GradeMax

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

BLANK PAGE

QUESTION 4 BEGINS ON THE NEXT PAGE.

4 Evaluate the 44 Juvenile Thieves study carried out by Bowlby (1944).

(8)

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

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

(Total for Question 4 = 8 marks)

GradeMax

5 Assess whether the classic study by Van iJzendoorn and Kroonenberg (1988) is scientific.

(8)

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

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

(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 (a) State what is meant by the 'other race' effect in terms of eye-witness memory.

(1)

(b) When studying eye-witness memory researchers sometimes use an experiment.

Explain **two** strengths of using experiments to study eye-witness memory.

(4)

1

2

(Total for Question 6 = 5 marks)

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

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

7 Karim is in court and has been accused of stealing.

Karim was raised in a wealthy neighbourhood and has a difficult relationship with his parents. He has had a history of mental illness and his sister died six months ago.

Kylian is a forensic psychologist who has been asked by the court to create a psychological (case) formulation for Karim and indicate the risk he poses to the public.

(a) Describe how Kylian would use psychological (case) formulation for Karim.

(4)

(b) Explain **one** weakness of Kylian using psychological (case) formulation for Karim.

(2)

(Total for Question 7 = 6 marks)

8 Ernesto was investigating the weapon focus effect.

He used volunteer sampling to recruit participants from his local village. He decided to show participants either video A or video B and ask them to identify the suspect.

Video A contained a woman who shouted at someone in a shop and then pointed a gun at a member of staff in an attempt to steal from the shop.

Video B contained a woman who shared a joke with someone in a shop and then gave a member of staff money to pay for her shopping.

Participants were asked to identify the woman they had seen in the video from a selection of photographs. They were either correct or incorrect in their identification of the woman.

(a) Identify the level of measurement used by Ernesto in this study.

(1)

.....

.....

.....

(b) A chi-squared test was used to calculate statistical significance for Ernesto's study into weapon focus. The calculated value was 2.90 for a two-tailed test at $p<0.05$, when the df = 1.

Analyse this data to decide whether this result is significant or not.

The critical value table can be found in the formulae and statistical tables at the front of the paper.

(2)

.....

.....

.....

.....

.....

.....

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

(c) Explain **one** weakness of Ernesto's study in terms of validity.

(2)

.....

.....

.....

.....

.....

.....

(Total for Question 8 = 5 marks)

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

9 Evaluate the use of cognitive interview techniques with witnesses.

(8)

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

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

(Total for Question 9 = 8 marks)

10 Bashir enjoys playing violent video games. In these games the player is given the task of fighting other characters in the game from a first-person perspective.

Recently Bashir has been playing violent video games every day and has won an online competition for being the most successful player.

However, Bashir has also recently been involved in more fights at school and with his brother at home. Where he used to be calm and patient, Bashir is now short-tempered and aggressive.

Discuss how social learning from the media could account for Bashir's recent behaviour.

You must make reference to the context in your answer.

(8)

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

GradeMax

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

(Total for Question 10 = 8 marks)

TOTAL FOR SECTION B OPTION 1 = 32 MARKS

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

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

SECTION B

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

OPTION 2: HEALTH PSYCHOLOGY

11 (a) State what is meant by an 'emotion-focusing' coping strategy.

(1)

(b) When studying coping strategies in health psychology, researchers sometimes use focus groups.

Explain **one** strength and **one** weakness of using focus groups in health psychology.

(4)

Strength

Weakness

(Total for Question 11 = 5 marks)

12 Karim is at a health clinic and says he is experiencing high stress.

Karim was raised in a wealthy neighbourhood and has a difficult relationship with his parents. He has had a history of mental illness and his sister died six months ago.

Kylian is a health psychologist who has been asked by the health clinic to assess how much stress Karim has experienced and indicate the risk to his health.

(a) Describe how Kylian could use the Holmes and Rahe stress scale to measure the stress experienced by Karim.

(4)

(b) Explain **one** strength of Kylian using the Holmes and Rahe stress scale to understand Karim's experience of stress.

(2)

(Total for Question 12 = 6 marks)

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

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

13 Ernesto was investigating whether there was a difference between internet-based cognitive behavioural therapy (CBT) and face-to-face CBT for patients with a variety of anxiety disorders.

He used volunteer sampling to recruit participants from his local village. He decided to give participants either internet-based CBT or face-to-face CBT and ask them to rate their symptoms after the treatment.

- Internet-based CBT involved 10 weekly one-hour sessions answering questions on the computer.
- Face-to-face CBT involved 10 weekly one-hour sessions answering questions with a therapist.

Participants were asked to rate the severity of their symptoms after their treatment. Their symptoms were rated as either 'better than' or 'worse than' they were before the treatment.

(a) Identify the level of measurement used by Ernesto in this study.

(1)

(b) A chi-squared test was used to calculate statistical significance for Ernesto's study into the possible difference between internet-based CBT and face-to-face CBT. The calculated value was 2.90 for a two-tailed test at $p<0.05$, when the df = 1.

Analyse this data to decide whether this result is significant or not.

The critical value table can be found in the formulae and statistical tables at the front of the paper.

(2)

(c) Explain **one** weakness of Ernesto's study in terms of validity.

(2)

(Total for Question 13 = 5 marks)

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

GradeMax

14 Evaluate the use of selective serotonin reuptake inhibitors (SSRIs) as a treatment for anxiety.

(8)

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

(Total for Question 14 = 8 marks)

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

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

15 Bashir has recently visited his doctor complaining of high levels of stress, after being promoted at work, and becoming a new father.

During the initial weeks after his promotion, Bashir found he could function effectively at work through remembering more and being able to focus on tasks easily.

However, after some months he found himself becoming more forgetful and frequently unwell. Bashir began to make quick, impulsive decisions at work and at home and even became angry with his partner and work colleagues.

Discuss how brain regions could account for Bashir's experiences.

You **must** make reference to the context in your answer.

(8)

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

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

(Total for Question 15 = 8 marks)

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

GradeMax

BLANK PAGE

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

GradeMax

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

BLANK PAGE

GradeMax

BLANK PAGE

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